



Photo courtesy of Dale Stewart

Historical accounts of upper Colorado River Basin endangered fish

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Final report

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Written by Fred Quartarone

Edited by Connie Young

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Contents

Introduction		i
Chapter 1	Sport-fishing for the endangered fish	1
Chapter 2	Uses of endangered fish	11
Chapter 3	Characteristics and distribution	23
Chapter 4	Human impacts to the endangered fish	37
Chapter 5	Attitudes toward the fish	49
Chapter 6	Conclusions	53
Appendix		55



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Introduction

Senior citizens familiar with rivers in the upper Colorado River Basin represent important sources of historical data about endangered Colorado squawfish, razorback suckers, humpback chubs and bonytail chubs. With the passing of each of these seniors, potential knowledge about the endangered fish is lost.

In the spring of 1991, the Information and Education Committee of the Recovery Program for the Endangered Fish of the Upper Colorado River Basin assigned me to complete a historical research project about the four endangered fish.

The intent of the project was to gather and document historical information from upper basin seniors about the fish so that information could be used in information and education efforts. The project's research area included all of the historic endangered fish habitat in the upper Colorado River Basin, from Lake Powell upstream.

To supplement the information provided by the seniors, data from newspapers, magazine articles, and to a lesser degree, technical reports, were collected.

While the project's design did not call for an exhaustive review of technical reports written about the fish, in researching and describing the history of the 1962 rotenone project of the upper Green River, it became necessary to refer to several such reports.

I performed the field work for this project during four one-week trips into the upper basin in the spring and summer of 1991. Before each trip, I called senior-citizen centers, town offices, post offices and local businesses in the areas I would visit to help me identify seniors who had knowledge of the fish. Once I identified seniors in an area who knew about the fish, I called them and arranged interviews. During the calls I inquired about other people who knew of the endangered fish. Most of the time my contacts knew of several more people, and my list of potential interviewees grew quickly.

During the four trips, I formally interviewed 111 seniors and talked to many others that lacked either knowledge of the fish or the capacity to remember them.

The average age of the 111 persons I interviewed was just under 77. The oldest person questioned was born in 1895 and the youngest in 1947. Only five interviewees were born later than 1940.

It is important to remember that the information in this report is dated. In general, the information comes from a time period beginning in 1910. Gaining information prior to this time was difficult, although a few seniors recalled earlier stories about the fish, and they are included in the report.

During the interviews, I tried to maintain a consistent line of questioning. However, depending on the individual senior's capacities and disposition, I modified my questioning to provide me with the most information and the senior with the most comfort.

Each interview, except for a few telephone interviews, included a fish iden-

tification quiz where I showed seniors a group of photographs that included both endangered and non-endangered fish. The seniors were asked to identify each one. Included in the photographs were the four endangered fish, a flannelmouth sucker, a roundtail chub, a rainbow trout and a northern pike.

Although the identification quiz was a necessary part of my interviews, in some ways it did not prove useful. Many of the seniors had not seen the endangered fish since childhood, and while they could verbally describe the fish, they had a very hard time identifying them.

Also, many seniors who incorrectly identified the fish were under the strong assumption or perception that recovery efforts were being directed toward flannelmouth suckers or roundtail chubs. Those perceptions contributed strongly to their attitudes toward the endangered species and efforts to recover them. This led me to conclude that when considering interviewees' attitudes toward the fish, accurate species identification on their part was not ultimately important – rather, their perceptions were.

Each of the 111 interviews was taped and transcribed. From the mass of dialogue gathered in those transcriptions, I wrote this report.

In writing it, I have tried to leave myself out of the text as much as possible to let the seniors tell their stories. To do that I organized the text into broad chapters that use subheadings to give the reader a sense of direction. At times the organization may seem loose but that is part of giving the seniors “the run” of the report.

To provide reference and keep the text moving, I placed seniors' hometowns in parentheses following their names. References to technical works are included in the appendix, as is a complete list of interviewees, their hometowns and ages.

Colorado squawfish, humpback chubs, bonytail chubs and razorback suckers are native to the Colorado River Basin and are believed to have been common in the early 1900s. For purposes of this report, these fish species are referred to as “endangered fish,” even though these species were not endangered when the seniors were catching and using them.

The last chapter offers a brief conclusion.



Photo by Fred Quartarone

As one of the more than 100 seniors interviewed for this project, Walt Siminoe remembered catching and eating the endangered fish from the Gunnison River. The 97-year-old Whitewater, Colo., area resident is pictured here in front of his home alongside Kannah Creek, where he lives alone without electricity or running water.

Chapter 1

Sporting qualities of the endangered fish

1

"... I pitched that green frog out there and this whitefish (Colorado squawfish) hit it, just about straight across, and he ran down that fast water, riffles, and took out about 200 hundred feet of line before I turned him around. It was a nice ... it was one of the most thrilling fish I ever caught if you want to know the truth ..."

Maybell, Colo., resident Gene Bittler

When it comes to matching endangered Colorado River fishes' sporting qualities against other fresh-water game fish, the Colorado squawfish ranks with the best of them, as Gene Bittler's account recalls. Big, aggressive and easily caught, Colorado squawfish were known and respected as sport fish by many upper basin anglers, including ranchers, farmers, children, miners, wildlife officers and city dwellers.

While the Colorado squawfish's sporting notoriety far outweighed the reputation of razorback suckers, humpback chubs and bonytail chubs, all four endangered fish species were caught and enjoyed by the basin's sports anglers.

Conventional rods and reels often were used by anglers to catch the fish, however, setlines — baited lines left in the water overnight — were the most common equipment used.

Carl Williams (Green River, Wyo.) explains a typical setline: "... you probably know what a setline is, a chalk line ... heavy, it's kind of a yellow line but it's called chalk line. We'd dropped our hooks off of it and usually use a nail (for weight), one of these tie nails, you know the spikes, or anything heavy. Throw it out in the river as far as we could and then we'd check 'em the next day, or in the evenings."

Retired Browns Park rancher Bill Allen (Vernal, Utah) used a setline in the Green River during the 1950s that was even less sophisticated.

"What we'd do is just take some fly line, tie a rock on it for a sinker and put a worm on the end, put a leader on it, and throw it in and let it sit," he said.

Upper basin residents recalled using setlines while fishing for fun and/or food. Tim Merchant (Green River, Wyo.), a deputy sheriff with Sweetwater County, told an incredible story about his grandfather using setlines to catch enormous Colorado squawfish in a stretch of the Green River now covered by Flaming Gorge Reservoir.

"They'd called it Linwood; it's under water now, and we'd picnic down there, spend the day," Merchant said. "And my grandfather would get chicken parts, just great big old chunks of chicken parts and stuff like that, put a hook in it and throw it out into the river into those big holes down there with clothes line. He just tied clothes line on it onto the bumper of the truck. And when that went tight they'd just back the truck up and drag those fish out on the bank. I can remember twice, two separate occasions dragging those squawfish out with the truck.

"They was as big as a junior high school kid, 90 pounds. That's a big fish,"

he said. "We didn't kill them, we just dragged 'em out in the bushes over there and leave 'em. We didn't catch that many of them, a couple of 'em a trip would do it.

"They were bigger than me I guarantee you," Merchant said. "Oh a hell a lot bigger. I was only 5 or 6 years old ..."



Photo courtesy of Gene Bittler

Tom Hiester, a Maybell, Colo., resident poses with a Colorado squawfish he caught in the Yampa River during the 1940s.

Lure-hitting Colorado squawfish

Other evidence about the sporting qualities of the Colorado squawfish comes from accounts of it readily being caught on the classic anglers' lure — a red and white daredevil spoon.

Retired Utah game warden Steve Radosevich (Browns Park, Utah) responded to a question about how readily he caught Colorado squawfish out of the Green River with lures.

"Oh my heavens yes, with lures," Radosevich said. "Red and white red devils. They were very easy to catch."

Radosevich fished a portion of the Green River below present-day Flaming Gorge Reservoir, near the river's confluence with Red Creek. He also recalled using lures to take Colorado squawfish below Flaming Gorge Dam during its construction.

"Well, I know when the dam was being built up here, around what they call the outlet there, the bypass, me and one of the 'fisher boys' out of Utah, we were catching squawfish up there. We'd use lures," Radosevich said. "They'd eat just about anything you'd throw in there ... I don't know they was either awful mad about something or awful hungry about something. But you go on

every trip and just get tired of pulling them in. We'd have maybe 20 or 30 fish out on the bank and when the workers would shut down when their shift was over, they would come by and pick up the fish and take them home."

Otto Shultz (Meeker, Colo.) recalled using daredevils to catch Colorado squawfish in the White River.

"Oh yeah, I fished a lot with hardware," Shultz said. "We caught squawfish on hardware, you bet. Primarily red and white spoons, daredevil type. I caught a number on probably an inch-and-a-half Five-Of-Diamonds, that seemed to catch the squawfish. I don't remember ever catching a squawfish on a fly."

While Shultz didn't remember Colorado squawfish being caught with flies, Dinosaur National Monument Ranger Glade Ross remembered that when he worked as a rafting guide for Bus Hatch between 1957 and 1965, a fellow guide used flyfishing gear to catch Colorado squawfish in the Yampa River.

"George Wilkins went after them with the fly rod at Hardings Hole," Ross said. "I guess that's one of the spawning grounds up there. He'd never eat them, just catch them and turn 'em loose. He was actually fishing for them."

In an unpublished essay titled "Fishing for the Endangered Species," Chuck Mack (Craig, Colo.) wrote about using lures to catch the Colorado squawfish in Browns Park in the early 1950s:



Photo courtesy of Chuck Mack

**Chuck Mack and child
with a stringer of
Colorado squawfish.**

"I'm glad we took Jim (Falerez) with us because by accident he taught me how to catch the Colorado squawfish on hardware. I had never used anything but bait. Fact is, I never took any fishing lures to the Green River. Jim had a big red-and-white daredevil he decided to try. He went out on a sandbar and was fishing in fairly fast moving water. His first cast he landed a big squawfish, then he proceeded to land two or three more before he hooked one big enough to snap his line and

take his lure. After that incident, I started taking my tackle box, and occasionally I would fish with lures, always with good results on squawfish. They were the only fish in the Green that would take a lure."

The Colorado squawfish's sporting qualities proved so engaging to members of a sportsmen club in Green River, Wyo., that they sent a specimen to the Wyoming Game and Fish Department to be analyzed, according to Ted Cook (Green River, Wyo.).

"Well this Colorado fish was always called the whitefish," Cook said. "I can't think of what this fella's name was, he was president at that time of the sportsmens' club. Whether he caught the fish or not I don't know, but I know he sent it to Laramie to get analyzed and find out what it was and it came back with

the name, the Colorado white salmon was what it was.”

When asked if the identification surprised his sportsmen’s club, Cook replied, “Well, no it didn’t because nobody knew what it was, and it wasn’t a trash fish you know. It was pretty good eating, it had, of course, meat. It was a pretty good fish.”

In a special Aug. 18, 1938, edition of the Vernal Express, the Uintah Basin Industrial Convention advertised the fishing opportunities in the Green River.

“Few realize that inhabiting the deep pools of the quarter-mile wide Green River are fish of a different order — white fish — which reach the 25-pound mark and are worthy game for those deep-sea fishermen of the President Roosevelt brand, who think in terms of swordfish and tuna.

“Ask 8-year-old Max Stewart, who caught a 25-pound white fish last year directly east of Dinosaur National Monument on the Green River, where the world’s best fishing is located. He’ll tell you of the sport connected with landing a fighting white fish or a channel catfish or a humpy, or carp, for all these are to be hooked by the skillful fisherman along the Green River.”

Colorado squawfish bait — vast and varied

Further testimony of the Colorado squawfish’s aggressiveness and sporting character is manifested by the bait the fish would take. To catch Colorado squawfish, anglers reported using frogs, swallows, rabbits, mice, liver, chicken parts, grub worms, earthworms, hellgrammites, sculpins, and parts of fish, including razorback suckers, bonytail chubs and carp.

Upper basin anglers were opportunists when it came to choosing Colorado squawfish bait. Katharine Rinker (Lily Park, Colo.) responded to a question about what she’d use for bait when fishing in the Little Snake River in the 1920s and 1930s: “Whatever we had. Worms or mice or liver or whatever we had at the time ... grasshoppers.”

Other upper basin anglers also reported using whatever they had, however some were much more particular about choosing their bait.

“The best bait you could get for them was if you could find a mice nest and get these little mice when they was pink and put them on a little board or something so they could float, and let them float on out there,” said Kenneth Bailey (Hayden, Colo.). “You’d get them out there in the river quite a ways and pull them off that board, and they wouldn’t hit the water good until one of them fish would take it.”

Bailey wasn’t the only one who knew about the Colorado squawfishes’ penchant for a floating mouse. Retired Utah game warden Steve Radosevich (Browns Park, Utah) recalled a story about his brother-in-law catching a 23-pound Colorado squawfish with a mouse.

“I heard stories about that, he went fishing with a mouse,” Radosevich said. “Mouse was on the hook when he put it on the board, shoved it out in the river, was trolling back with it when the big fish got it.”

Ted Cook (Green River, Wyo.) was also particular about his Colorado squawfish bait. He fondly recalls searching for large grubs to use for bait: “We had a sand grub here we used a lot in fishing. In the spring of the year when it starts to warm up, when it starts to show a little heat on the sand from the sun,

boy you get along those greasewoods, where they're shaded from the wind, where the sun comes in them from the east and you dig down there and get them grubs. They'd be about as big around as my finger. And about that long, but they'd be curled up just like a shrimp. They had a yellow head and they was good for fishing. They was good fish bait. Them was the good days, that was when I enjoyed life."

When Cook wasn't using grubs to catch Colorado squawfish he would sometimes use swallows.

"... you know those barn swallow or sparrows?" Cook said. "Well we used to get rid of them knocking their nests down and knock some down without them knowing, and we'd just put a harness on them and throw them out in the river ... I caught a couple of three fish (Colorado squawfish) with them."

In "Fishing for the Endangered Species," Chuck Mack (Craig, Colo.) wrote about a day in the early 1950s on the Green River near Lodore Canyon, when swallows were falling into the river and being eaten by Colorado squawfish:

"We would go down into Lodore Canyon until we came to the first rapids. That's as far as we dared go because we had to turn around and come back upstream. There were hundreds of swallows who had their nests built of mud on the canyon walls. This one time when we were fishing, the baby swallows were just leaving the nest. A lot of them fell into the river and drowned. Every big squawfish in the Green River must have migrated to the canyon to feast on the swallows because we sure caught a lot of them, or let's say, we had a lot of them hooked. The tackle we were using was a little light for a 50-pound fish. We managed to land a lot of 10 to 20 pounders. Every one that we gutted out had a stomach plumb full of baby swallows! We also caught a lot of nice channel catfish. They too, were feeding on the swallows."

Cottontail rabbits as bait

Besides mice, sand grubs and swallows, cottontail rabbits were a popular and effective bait for Colorado squawfish.

"I used a half a cottontail rabbit head on one line and a chunk of breakfast bacon about that square on the other line," said Bill Allen (Vernal, Utah) when talking about fishing in the Green River in Browns Park in the early 1930s. "I caught a 15-pound whitefish and a 20-pound whitefish right down by the Swinging Bridge that first spring I was there when we were working on the bridge."

Ex-Oak Creek resident Pete Kerzan (Lakewood, Colo.), recalled a story about a Colorado game warden showing him how to catch large Colorado squawfish using cottontail rabbit heads in the Lily Park area on the Yampa River during the late '30s and early '40s: "I went down to catch the blue channel fish, catfish. I liked them better than the trout, but I caught some of those big mouth whitefish. They weighed 15, 20, 25 pounds, but you couldn't eat them; they turned soft right away.

"Wilson the game warden was transferred down to Browns Park, and he said 'You can stay in my cabin instead of putting up a tent.'

"He said 'Have you ever caught any of them whitefish?' I said, you mean

the grayling? 'Oh no, not grayling, the other ones with big, big mouths.' No I said I never seen one. He said, 'You take your .22,' and he showed me a spot down there.

"He says 'You shoot yourself a cottontail.' And I tell you I watched on that spot up there. One of them got pretty close, well I plugged him.

"Well I kept the cottontail, Wilson wasn't in and I didn't know what to do with the cottontail, and I wanted to go fishing you know. Just about when I was ready to go, here he comes. I said I got a cottontail. He said, 'Well cut off his head.' I thought to myself, I wonder what he's going to do with that head.

"I went and cut off the head he comes out of the cabin with a pretty good-sized hook. And he hooked it right there by the head and he tied it on the line and he said to go down there in a certain place and just throw it in, let it ride on down until you run out of line and then just hold it there.

"I did half way using up line you know, but something, he didn't give me a big jerk, but I knew that something was on there. It wouldn't make no fight of any kind. When I was close enough I got out and could see the sandbar there and said, by God I better work myself down toward the sandbar so I could pull it in. I couldn't lift it. On a sandbar I started dragging it in. It weighed around 18 pounds."

Perhaps the best example of the Colorado squawfish's aggressiveness comes from a story where an angler coaxed an overly pugnacious squawfish to shore without it ever touching bait or a hook.

Dale Stewart (Vernal, Utah) recalls the catch: "We'd go fishing up in Green River Gorge, and my dad would set out about eight setlines. Then we'd sit and fish by the setlines. This line that I was sitting by, it would go like that about two or three times, and my dad said, 'Son, why don't you pull that in. I think it got the bait.' I pulled that line in like that (quickly hand over hand), and it wasn't a real sloping bank. A 10-pound whitefish (Colorado squawfish) shot out on the sand after the bait. He'd a got back in the river, but I was there, just threw him out on the bank and had him for supper."



Photo courtesy of Wanda Staley

John Robbins supports a stringer of Colorado squawfish caught in the Green River near Island Park in the late 1920s.

Endangered fish as bait

Other residents reported that the endangered fish themselves made excellent fishing bait. Clarence Smith (Palisade, Colo.) said he would sometimes use razorback suckers for bait, when he didn't throw them on the bank or release them.

Colorado River fisherman Lyndon Granat (Palisade, Colo.) found that bonytail chubs and humpback chubs made excellent catfish bait.

"In the early '30s, somewhere in there, they introduced channel cats in the river, and the bonytails and the squawfish began to disappear," Granat said. "I shouldn't say disappear, begin to get less numerous. And then we discovered, we'd catch those big channel cats, we'd use a bonytail or a humpback chub for bait and they had a spear hook, like two hooks on it, and you had a spear on the end hook and an eye. And run that hook through the bonytail's body and out its mouth and then hook that hook that was attached to the line to that eye. And that allowed that fish to wiggle like this even though it was dead. And you would throw your setline or trotline, whatever you want to call it into a ... an upper end of a pool and let it come down a ripple and those bonytails would shake like this and those catfish would come up and ... and they grabbed a fish by the tail and they turned them in their mouth and swallow them headfirst, you see. And that's the way they caught the big channel cats with that and with chicken liver. They didn't really catch any really big catfish until the latter part of the '30s and early '40s and then you began to get catfish out there that weighed between 6 and 8 pounds."

Spearing Colorado squawfish

Some Colorado squawfish were even "gigged" with spears and pitchforks, according to some interviewees. Most spear-wielding residents were gathering the fish for food. However, Tom Hastings (Green River, Utah) recalled spearing a Colorado squawfish for fun beneath his family's water wheel and getting more fun than he bargained for.

"My brother and I, we waded in there, the water hit me about here (chest high), we waded in there behind that wheel with a couple of spears," Hastings said. "One of them (Colorado squawfish) damn near drowned me. I hooked in to him, he took me down out of there ... I was underneath and on top (of the water). I was small and wasn't about to turn him loose. I was about 7 or 8. My brother, he was older; he got down there and got me, and I still had my fish."

Catch of a lifetime

To some upper basin anglers, hooking a large Colorado squawfish represents an unforgettable "catch of a lifetime."

For Max Stewart (Vernal, Utah) landing a 25-pound Colorado squawfish remains the height of his angling career. While on a fishing outing with his father, 8-year-old Stewart was given the sole responsibility to patrol some 18 lines set in the Green River, near Jensen, Utah, after his father became ill. After catching several catfish on the makeshift tamarack rods, Stewart was patrolling the row of rods when he noticed the end one being pulled into the water.

"As I was walking down to the last pole on the up-river side, why there was the biggest commotion in the water," Stewart said. "The water was really boiling

and just as I got there I kinda stopped and the pole started to go out into the river, so I waded out a few steps and picked up the pole and pulled on it and there was a huge mouth, just enormous.



Photo courtesy of Dale and Max Stewart

Max Stewart poses with the 25-pound Colorado squawfish he 'dragged' out of the Green River, near Jensen, Utah.

"And I hate to admit this but it scared me to death because my mother had told me, upon leaving, 'Now Max, don't let a big fish catch you.'

"You know this mouth opened ... I remembered I pulled on it a little bit and realized it was a big fish so I just turned around and put the pole over my shoulder and went up the bank. There was no skill or anything involved in it. I was still frightened.

"They said I fell down two or three times. They could see in the sand where I fell. I got up there quite a ways, and I looked around and the darn thing was still following me and it was just flopping. It was quite an experience for me because I never had caught anything like that, and I never had been around anybody that had.

"So I didn't know what to do. I usually fished by myself. So I ran down and got my father and told him, 'Dad I got a fish so big I can't carry

it,' and he was sitting there kinda sick and he really didn't want to ... at first he didn't believe me and then finally he realized I was too agitated to be making it up so he got out and we went down and then you see him 'get well' all of a sudden. We gathered up everything and collected the fish and went home and he got his camera out and he took this picture, and it got put in the Vernal Express, and then he sent a picture to my Aunt May in New York, and I think she put it in some sports magazine."

Bonytail chubs as sport fish

Colorado squawfish weren't the only upper basin endangered fish once prized for their sporting qualities. Ted Cook (Green River, Wyo.) remembered bonytail chubs or "bonetails" (a catchall name used for all species of chubs) hitting flies.

"Used to catch bonetails with flies, you know," he said. "When you went

fly-fishing, you'd catch bonetails with flies."

Dale Stewart (Vernal, Utah), Max's brother, recalls the sporting character of bonytail chubs: "They'd bite like trout. You would run into a school of them and you could just throw your bait up, a worm or grasshopper or whatever, and keep it moving, and they would strike and break the water like a rainbow trout. It's really a thrill to get into a school of them."

Fishing, picnicking and camping

Angling for the endangered fish often was done in conjunction with picnicking or camping.

Walt Siminoe (Whitewater, Colo.) recalled going to the confluence of Kannah Creek and the Gunnison River and having fish fries with about "eight or 10 fellas." The group would pack Dutch ovens on horseback to the confluence to cook the fish.

Dick and Toni Sherwood, (Whitewater, Colo.) would take a frying pan to the river with them to cook their catch. When asked if they would eat roundtails and bonytails, they responded: "We usually we ate those up before they could ..." started Toni before Dick interjected, "We had a skillet, and we'd eat them right up on the river. You catch 'em, you eat them."

Verlyn Westwood (Moab, Utah) remembered Colorado River fish being both a source of recreation and food for her family during the 1940s.

"We used to go fishing quite a lot. That was probably our main source of recreation when we were kids. Of course I was a child during World War II and meat was rationed, any fish that we caught we ate. We'd take my dad's war truck and gather up the whole family and take them to the river. We went fishing a lot. It was mostly for recreation that we did it. Sometimes we'd take a pan along to the water and have supper down there."

Bronc riding with Colorado squawfish

A particularly humorous form of recreation the endangered fish provided — bronc-riding — was recalled by two upper basin residents.

Otho Ayers (Paradox, Colo.) remembered the results of hanging a large Colorado squawfish he caught from the Dolores River onto his saddle horn around 1920: "One time I hooked one, and I hung it on my saddle, or over my saddle horn, and crawled on and he flapped about then, and I had riding job to stay on that horse. That horse was trying to buck him and me off. After the horse got quieted down a little, I got it up and throwed it over my shoulders to keep him from whipping my horse."

Cary Barber (Maybell, Colo.) didn't have as much luck as Ayers when he tied a large Colorado squawfish to his saddle in the early '50s. In the 1981 March/April edition of Colorado Outdoors magazine, Barber is quoted as saying:

"I was just a 17-year-old cowboy, riding for the Lily Park Cattle Company. Down the Yampa River at the lower end of Lily Park is Deer Lodge Park, just above where the river started down the canyon. In the Deer Lodge Park cabin, I found a heavy fish line with big strong hooks about as thick as eight-penny nails. I caught a fledgling blackbird, put it on the hook, used a piece of cottonwood bark for a float and fished a deep hole. I got a real hard bite and

finally hauled in a whitefish about 4 feet long but got my hands rope-burned by the fish line before I had the fish on the bank.

"I took it to the cow camp and all the boys liked it, so I was told to go get another. But, remembering the rope burns from the fish line, I decided to fish on horseback with a dally around the saddle horn. Not having another blackbird for bait, I hunted a nest of mice baited up with them and went fishing. Right off, a whopper latched onto the mice and was hooked. I didn't fool around but doubled the dally on the saddle horn and hauled that fish out like I was dragging a calf to the branding fire.

"Well! This fish was the biggest I had ever caught or ever seen. A few hard whacks on the head with a tree limb quieted the fish to where it looked dead. I hung the head of the fish on the pommel of the saddle with a strap and its tail hung down to the horse's fetlock.

"It was spring, and like I say, I was just 17 and there was a young lady living at the Barnes's place, just below the mouth of the Little Snake River. I figured me catching the fish would maybe make a good impression on that attractive young lady, so I made a detour to show off my fish at the Barnes's place.

"Mrs. Barnes had just hung her washing on the clothesline. She saw the monster fish and went in to get a camera. About then I felt the horse flinch a bit and looked down in time to see that darn fish come to life and give a mighty slap with its tail, catching my horse in the belly. I tried to get off with dignity but my horse helped me off in a hurry, then ran off. The strap holding the fish broke, and the horse took off right through the clothesline, which caught on the saddle horn and strung out for a quarter of a mile along the grease-wood flats."

Chapter 2

Uses of endangered fish

11

“Don’t you know what a whitefish (Colorado squawfish) is? If you don’t know what an ol’ whitefish is, then you don’t know much about fish. They’re just like halibut.”

— Bill Allen, ex-Browns Park rancher

While not all of the interviewees agreed with Bill Allen’s culinary comparison between Colorado squawfish and halibut, many acknowledged that they commonly ate the Colorado squawfish and other endangered fish. In addition to eating the fish, some upper basin residents even sold the fish and sometimes used them for fertilizer and animal feed.

Of the four endangered fish, the Colorado squawfish was often the preferred species for table fare, although some residents expressed preference for razorback suckers and bonytail chubs.

Bill Allen (Vernal, Utah) tells about his preference for Colorado squawfish or “whitefish,” as they were commonly called: “We’d get some whitefish once in a while, and that was a big treat when we’d catch a whitefish. They was a better fish, better eating.”

Compared to the razorback sucker, humpback chub and bonytail chub the Colorado squawfish was reported to have fewer and bigger bones, making it more edible. Jim Buffham (Maybell, Colo.) recalls what made a “whitefish” (Colorado squawfish) better eating than other native fish: “They were a good fish. See the problem with these squawfish (bonytail and/or roundtail chubs) and suckers and roundtails, they were so full of bones that you couldn’t get the bones out of there to get the meat off of them.

“You could take the (whitefish) bones right out of them. They were big bones. The squawfish (bonytail and/or roundtail chubs) and suckers had real fine bones and full of them, all through the meat. Pert near everybody fried the whitefish. You could get the bones out of them.”

Undoubtedly, the size of the Colorado squawfish contributed to its popularity. Some seniors recalled cutting steaks off of large Colorado squawfish. Here Buffham tells of such an incident with a 30-inch Colorado squawfish caught in the Yampa Canyon around 1929: “They put it in a skillet and fried it. But they just cut through the back bone and just cut slices like that off it. The fish was that big, and it was just like a steak.”

While looking at a photograph of the 25-pound Colorado squawfish he caught in 1937, Dale Stewart (Vernal, Utah) reminisced about the fish’s food value: “... you can see how you can cut steaks off that thing. I remember a fish like that really was a harvest, and it produced not just one meal, but quite a few meals for the family.”

Max Stewart (Vernal, Utah), Dale’s brother, recalls the meat his father would eat from large Colorado squawfishes’ heads: “Most people would cut their (Colorado squawfish) heads off and throw them away. My dad would take

the heads from them if they were going to throw them away. He would trim the gills, eyes and everything out of the head and bake it. It had 2 or 3 pounds of white meat without any bones at all. That was always quite interesting to me that he did that.”

While Colorado squawfish were usually consumed fresh, Kenneth Bailey (Hayden, Colo.) said some fish were just too big to eat that way.

“Down there in the lower (Yampa River) country, those people that caught these bigger fish, most of them was so big you wouldn’t eat them only a meal or two of them, and then you’d can the rest of them,” Bailey said. “Those whitefish after they were canned was almost like eating salmon.”

Norma Simper (Vernal, Utah) remembered cutting steaks from Colorado squawfish.

“... I know the steaks through them are about 18 inches. That makes about a 20-inch steak if you fillet it out flat,” she said. “... the whitefish that comes out of the Green River is top eating and the catfish is marvelous.”



Photo courtesy of Dale Stewart

TABLE FARE: Colorado squawfish were appreciated for their food value by many seniors. These fish were caught in the Green River.

Use of other endangered fish

Although upper basin residents ate other endangered fish, many said they were bony.

“I know those bonetails (referring to all chubs) aren’t (edible) because I tried to eat one when I was a kid, and they’re absolutely sickening. There’s about 2 million bones in each of them,” Tim Merchant (Green River, Wyo.) said.

Wanda Staley’s (Vernal, Utah) family seined the Green River in Island Park during the 1920s and 1930s to gather fish for subsistence. She recalls culling chubs (probably including humpback chubs) from the net.

“Oh, there was some of the trash fish that was too bony and we’d throw ‘em back in,” she said.

It took the Depression to get Carl Williams’ (Green River, Wyo.) family to eat the purported overly-bony chubs found in the Green River.

“We ate everything, except them bonytail; we ate suckers,” he said. “Of course during the Depression we ate everything.”

Arthur Daugherty (Clifton, Colo.) remembered catching “a few razorback suckers,” which his father firmly disliked.

“Oh yeah, there was humpback suckers, camel back suckers that they’re protecting now. We didn’t especially like them,” he said. “My guess is they’re too hard to skin. Dad always like to skin things. Sometimes we’d just throw them back because we figured to get the skin off of them over the hump was a real problem.”

Arel Hunt (Green River, Utah) talked about eating razorback suckers for subsistence.

“We used to catch humpback suckers. Right behind their eyes they had a hump on ’em,” he said. “We were too damn poor; we had to eat them. They’re good flavored if you could get rid of the bones. There was eight of us at home. We kept everything.”

Bonytails, humpbacks and razorbacks as table fare

Despite complaints about the bones, some residents preferred eating bonytail chubs, humpback chubs and razorback suckers.

Essie White (Moab, Utah) recalled townspeople canning fish caught out of the Colorado River: “Yeah, they used to can it. They used to put those bonetails and everything like that in the cans and pressure them and usually couldn’t even tell there was bones at all; you’d eat all of them. They were just soft. They didn’t bother you. A lot of people canned fish.”

Ray Case (Debeque, Colo.) believed the razorback or humpback sucker was some of the finest eating fish available. Case caught his razorback suckers just above Palisade, Colo.

“Back then, we’d talk about people, the old timers we knew around, of course all the old timers that were here that fished that river are all dead now. And everybody called them the humpback suckers. They might have had a humpback, but that hump was pretty good eating. We were so cotton-picking poor that we didn’t know good from bad.



Photo courtesy of Tom Hastings

Green River, Utah trapper Mac McDowell thought razorback suckers were ‘better than catfish.’

“Somebody told us something about liking suckers. They have a good flavor, a flavor of their own. Just split them, kind of slice them up, they’re really bony but you split them and deep fry them and fry them pretty crisp and those bones didn’t seem to bother you.

“I still say they’re the best fish there is to eat; that’s the truth. I’d rather have them. We had to be awful careful with the kids because of the bones.”

Tom Hastings (Green River, Utah) recalled a trapper who had a penchant for razorback suckers.

“There was an old trapper here, well he was here after I come back from World War II,” Hastings said. “He’d catch those suckers and eat them. I don’t know how they fixed them, but they thought they

were better than catfish. He had a set of gang hooks on the end of a pole, and he'd just set there on a plank across that wheel, when he seen one he wanted, why he'd just reach down and get 'em. He set there and wait 'til he found the one he wanted to. He wouldn't just pick any of them. He was quite a guy."

Pressure cooking

Before the time of refrigerators and freezers, upper basin residents would preserve large catches of fish, including endangered fish, by canning them. Besides preserving their catch, the canning process would dissolve many of the fishes' bones and make them more palatable.

In the 1920s and 1930s, Lyndon Granat's (Palisade, Colo.) family would put all the Colorado River fish, including endangered fish, into a pressure cooker: "Gut them and chunk them and put them in quart jars, pressure cook them. Damn, they made salmon taste bad. The bones and everything else.

"That's what we lived on back in them days. I tell you, in the Depression years you ate what you could get, you know. And that (Colorado River fish) was quite a supplement to your food supply."

Don Hatch (Vernal, Utah), who netted razorback suckers in the Green River, said: "I know some people would keep the suckers and pressure cook them. They tasted OK, pretty bony. They would use pressure cookers so the bones would soften when they cooked them."

Tom Hastings (Green River, Utah) talked about pressure cooking razorback suckers, "They'd pressure cook them, the Brocks would. Get rid of them fine bones so they could digest them."

Gordon Hodgin and Raymond Meyer (Delta, Colo.) remembered Delta residents canning suckers. Hodgin worked in a Delta hardware store and recalled selling pressure cookers.

"They'd come in the store and buy them, and I'd ask what they were buying this for and they'd say to can suckers. It was for suckers more than trout. Once they pressured a sucker they could pull it loose from all those bones," Hodgin said. "I remember going out to Bertrands, and we had this pressured ... they said it was canned salmon. They told me we were having canned salmon, and boy it tasted good, and I said what kind of fish is this? Before we got done they finally told me it was sucker, but it was delicious. It was very flavorful."

Netting endangered fish

Testimony that endangered upper basin fish played a very important role in residents' diets is evidenced by recollections of gill and seine nets being used to collect fish to be used for subsistence purposes.

Bill Allen (Vernal, Utah) recalls a neighbor in the 1930s using a gill net in the Green River, in Browns Park: "They used to have these gill nets they would set in there for them too. Well, I know Taylors used to do that. They had a gill net. I used to help them set it ... It was about 30 feet long, you would fasten it there and to the bank and then take a boat and take it out in the river. They would swim through it and get caught in it. Every morning we would go and pull it in."

Downstream on the Green River, Wanda Staley's (Vernal, Utah) family on the Ruple Ranch was doing the same thing.

"We ate quite a lot of fish because it made a variety in your diet," she said. "Ira Burton, he was an early settler here. He and his family used to come over and go seining quite a bit. They'd take one end of the seine out into the river in the boat and throw the other end on the bank and come in, just make a circle and just bring the fish in. They'd bring 'em in by the washtub full.

"When you'd get a lot like that you'd can what ... we weren't a family to waste things. We never wasted anything."

Commercial seining in Grand Junction

Reports from several western Colorado residents indicate that commercial seining occurred near Grand Junction, Colo. Al Wing (Grand Junction, Colo.) recalled the story: "Oh sure, a lot of people caught fish, in fact, when we moved down here there were a few fellas who had a boat and they put the boat in the river in Grand Junction and seined down to Fruita, and there was a fella with a horse and wagon to bring the fish back. They'd go the next day and sell them. And the next day they'd seine again and the next day they'd sell them. They'd ring the bell and drive up and down the streets."

Charles Inglehart (Fruita, Colo.) also heard about men seining the Colorado River near Grand Junction: "Yeah, there was a fella, I never did see him use a net, but there was an old boy, I can't think of his name and he had a boat out of tin, a boat made out of metal and he used ... they said he used to net fish."

Arthur Daugherty (Clifton, Colo.) also remembered people seining the Colorado River in the late 1920s and commercially selling the fish.

"And there was a fellow here that seined the river. Seined them and sold the fish," Daugherty said. "He'd put a seine in down here at Main Street bridge and seine clear to Fruita and by that time he had a wagon load of fish, or nearly so. And he'd come up and he sold 'em cheap. It was a source of food."

Young 'businessmen' and endangered fish

Some upper basin children would catch and sell endangered fish to get spending money.

As Carol Hines (Moab, Utah,) recalled, "Kids used to try sell them around here to get a little money. Times were pretty hard back then in those days and some of the kids would sell the fish. Sometimes people would just help them out."

Near Parachute, Colo., Lee Hayward caught Colorado River fish and sold them.

"During the Depression we'd sometimes getting a stringer full, you know of carp and such, and we'd take the fish and peddle them. Get a nickel a piece for the suckers and get three of them and get 15 cents and that was more money than we ever had," he said.

In Green River, Wyo., Carl Gaensslen (Green River, Wyo.) recalled selling chubs and Colorado squawfish as a boy to two Chinese restaurants. Here he starts by talking about selling "bonetails" (a common name for chubs in the area): "Now the bonetails, they never got about 12, 14 inches long and the suckers got to be pretty good size, and we sold them to the Chinamen or anyone who would buy them. We fished for a living. We'd sell them to Chinese restaurants and they'd sell 'em as trout, or (we'd) sell them around town ... sell them on the



Photo by Fred Quartarone

As a boy, Green River, Wyo., resident Carl Gaensslen caught endangered fish and sold them to Green River restaurants and townspeople. During his interview, Gaensslen wryly stated, 'We fished for living.'

way in. We'd come walking through town with them.

"Now we also sold the whitefish (Colorado squawfish) although they were pretty good — the big ones. One of those big ones in there we sold to a Negro family. Sometimes we'd get 25 cents for them for a fish 12 to 14 inches long, some of them would give you quarter, or a half a dollar, you didn't have any set price."

Carl Williams (Green River, Wyo.) also found a market for his river fish at Green River's two Chinese Restaurants: "That's how us kids got our spending money. They had two Chinese cafes, we used to sell fish to them. Summer time we'd sell fish and the winter time we sold rabbits and pigeons."

Fish fries

An article in the Winter 1991 edition of the Journal of the Western Slope referred to a fish fry held at Loma, Colo., in an article titled, "Hard Times but Good Times: Grand Junction Women During the Great Depression":

Fall Fish Fry

"Politics and red ants killed the Fall Fish Fry held for many years at Horsethief Canyon. Farmers went to the river on a Saturday and with either four or six boats they hung nets between each pair of

boats, catching hundreds of large fish. The smaller ones escaped through the holes in the nets. They kept the fish alive in vats of water overnight, then early Sunday they were dressed by the members of the Loma Community Club, and the men fried them. The women brought the rest of the picnic dinner and soft drinks. It was hard work but we had a day of fun until the office seekers from all over the state started to swarm over the place. Republicans swore, Democrats cussed, and the Loma community decided it was not worthwhile. No more fish fries!"

Herbert Snyder (Grand Junction, Colo.) recalled two community fish fries held in Grand Junction along the banks of the Colorado River in the mid-1920s. The events each drew between 50 and 100 people.

"Every once in a while they'd have those community meetings you know or gathering ... fish fry they'd call them," Snyder said. "Oh I guess that would happen about twice a year.

"The one that I remembered particularly was down there at the Main Street bridge ... Old Main Street that used to cross the river there. Off to the right there was nothing in there like there is now. It was open and you could camp right in there and cook and party.

"They had a seine if I recall it was about 30 feet long and I couldn't tell you how deep it was, but it was deep enough to get out in the river. And then they had this boat, it was a wooden boat that belonged to the neighbor that lived up the road here from us. And they took that seine with that boat and he'd get in there with his oars and go out across the river and spread that seine out and then pull it in and those that were helping would get a hold of and help pull the seine in and then you gathered the fish right there on the bank."

According to Snyder, the group would fry the fish in pans over open fires.

Max and Dale Stewart (Vernal, Utah) remembered fish fries held between 1934 and 1939 along the Green River, near Jensen, Utah, in which a seine would be used to catch the fish.

"There were five or six families there so it would be a sizeable pack," Max said. "And the guys seined enough fish so that there was an abundance, and there was some left over that they could take home. They didn't have any way of keeping them, so they took them home and cooked them."

Dale remembered setting the seine, which was approximately 50 feet long, 4 feet deep and equipped with floaters and sinkers: "My uncle, Jerry Hatch, and his son, Bill, and myself would, and of course, a lot of the local people, would go help. Bill and I would swim the rope across the channel or something, then pull the seine in. It was our job to just get it around. In fact, on a couple of our hoists one time, the gardener rolled horses down the river to scare the fish into the seine, and they really pulled a bunch of fish out. I don't remember the poundage or how many, but I think they had a whitefish that time about 25 pounds.

"That time I don't think we had the cookout, I think the fish would just be divided. One that I recall, that Max has probably already told you about, we went up across from Joe Hassel's place and seined there, and had that big cook-out which lasted the better part of the day around noon until evening anyway."

Kenneth Bailey (Hayden, Colo.), who homesteaded in Lily Park from 1932

to 1936, remembered people catching fish for human and animal consumption by trapping them with chicken wire.

"These draws run into the river, a lot of people would go in there and take chicken wire and when the river was way up they take this chicken wire and sink it close to the river so when the river went down the fish couldn't go back and they'd get in there and catch all the fish they wanted and can 'em all," Bailey said.

"There wasn't no trout down there but there was whitefish and catfish and all that ... they canned the suckers and all. A lot of them took what they didn't can and haul them up and feed 'em to the pigs."

Katharine Rinker (Lily Park, Colo.) also remembered Colorado squawfish being trapped with chicken wire in Lily Park in the 1930s.

"Oh, one spring the boys caught one (Colorado squawfish) that was 18 and-a-half pounds and one that was 19 and-three-quarters," she said. "They caught them by hand in the backwaters when the river was real high. And they put a chicken wire or something at the mouth of this little channel that filled up when the river was real deep, trapped them and then waded in and caught them."

Essie White (Moab, Utah) used a net, as well as setlines in the Colorado River to catch fish around 1920.

"We used to take in the evenings up the river there, by the first ranch up the river here, about 15 miles up, White Ranch, and set the net at night," she said. "We had lots of grasshoppers on the ranch and would set it with grasshoppers and go early, just before daylight in the morning, and pull them out. We just cut 'em up and ate 'em. There were suckers there too.

"And also I don't think you can do that anymore, they used to have those fish lines that you put a whole bunch of hooks on. Used to fish with them. My ex-husband, he was quite a fisherman. He used to get up and do the fishing, get up in the morning, sometime he'd take the boys over."

Walt Siminoe (Whitewater, Colo.) used a seine at the confluence of Kannah Creek and the Gunnison River between 1908 and 1912 to catch suckers in the springtime. Afterward Siminoe and friends would hold a fish fry or divide the



Photo courtesy of Katharine Rinker

The Rinker girls support a Colorado squawfish caught in Lily Park, Colo.

fish between area families. According to Siminoe, approximately one-third of the suckers caught were razorbacks.

The group would use a 30-foot trammel net, which they would position with ropes across the flooded mouth of Kannah Creek, Siminoe said.

"... see Kannah here runs into the river and it would flood. The railroad had a bridge there and they could cross," Siminoe said. "One bunch on one side and one on the other and pull the seine into position with the ropes. Get up the creek a ways. The fish would come in there, good and deep. All the river used to back up perty near a quarter of a mile in here.

"Every family would use so many of them, that's the way we'd divide them up. There used to be a lot of people living here on the creek. Now it's all deserted."

Frequency of use

Both rural and urban residents included the fish in their diets in varying degrees. In general, rural residents reported catching the endangered fish in conjunction with their ranch or farm chores, whereas urban residents usually caught the fish during an "outing."

Rural resident fishing

Katharine Rinker (Lily Park, Colo.) would leave baited setlines overnight in the Yampa River in the 1920s and 1930s. She'd check them in the morning or evening when working with the family's milk cows.

"Well, there were eight kids in the family and we all sporadically fished," Rinker said. "The line was just a willow pole with a string and a hook on it. Stick it in the mud in the river bank and go back and check it when we turned the cows out or brought them in at night. Sometimes, if they seemed to be biting we'd go out and fish a while. Generally we just set the lines and check them."

Browns Park rancher Bill Allen (Vernal, Utah) would "set a line" if he felt like eating fish.

"We'd generally set a line or two and go down early every morning and check them and have fish to eat," he said. "We didn't set them unless we could eat them."

Other seniors remembered catching Colorado squawfish while irrigating. Eleen Williams (Dutch John, Utah) remembers carp and Colorado squawfish coming into the irrigation ditches during the late 1940s and early 1950s on their ranch along side the Green River near the old site of Linwood, that today is underneath the waters of Flaming Gorge Reservoir.

"And when that irrigation, those ditches were all full in the spring, the carp used to come up the river and up the irrigation ditches to spawn and that was quite an event to go down there and take the .22 down and shoot them. Then we would watch you'd get a whitefish," Williams said.

"We would bring a whitefish up, this friend of ours, Minnie Rasmussen, she loved fish, and they would catch couple of three for her, and she would soak them overnight in vinegar to take the mud taste out of them and then we would cook them. Most of the time we baked them because they was too big to fry.

"We would cut off the best meat part of it you know and bake them. They tasted real fishy and of course there weren't many bones in them. But you always had to soak them in vinegar because they would have an awful mud

taste.

"They were no good when the Green River was low. We never bothered with them. It was only in the spring when the high river was down. We'd have one or two and then we would get tired of it."

Alma Scovill (Green River, Utah) once used a pitchfork in the 1940s to harvest a large Colorado squawfish that found its way into an irrigation ditch behind his house.

"They turned the water out of the ditch here one time in this canal right here, and I went up there to plug my pipe so the mud wouldn't run in," Scovill said. "And there's always fish in there, and those puddles, when the water goes down all those puddles were full of fish. This one had his back sticking out of the water ... I had a cow out there in that corral then, a milk cow, you see. So I had some hay there so I just grabbed that pitch fork and went up there and jabbed it in him and brought him out."

"They called it a white salmon, I didn't know what it was. Some of these guys around here told me it was a white salmon. It was 25 pounds ... we weighed it."

Scovill made the most of his windfall and put the fish on the table.

"(We) put him in the oven in a big dripper and baked him whole. Sometimes if they're too big, you have to cut them in two. That's the best way to bake them."

Tom Swain (Paradox, Colo.) said the fish his family caught from the Dolores River represented a small part of their diet, particularly in the springtime.

"Well a very small part I would say, but a part of it, yeah. Mostly in the spring of the year when they were making their run up the river, that was the most we fished it," he said. "Oh most common way (to catch fish) was to set a throwline, leave it all night, go back the next morning and you probably had anywhere from six to 10 fish on it."

Swain reported catching suckers (no razorbacks), bonytails and whitefish from the Dolores River.

Wendell and Kenneth Johnson (Delta, Colo.) caught Colorado squawfish and razorback suckers on their farm along the Gunnison River.

The brothers used a metal fish trap, built by their father, to catch the fish in the 1950s as they swam from the river into a slough located on the family's property.

"We use to have a fish trap out there," Wendell said. "And we used to have round ... oh made out of rabbit wire with a funnel deal that the fish would swim up in there, and when they got in there they couldn't get out. And shit, we'd go down there and there's times you couldn't even pick the damn thing up there'd be so many squawfish in it. We had 18-pounders, a lot of them average, I'd say about 9 pounds."

"We used to can them things all the time. Heck there was a lot of those around at the time. My mom canned. She put 'em in a pressure cooker, they're just like eating salmon. Just like you do with trout. If you can anything, you just put it in a jar and put whatever you're going to do and can 'em."

Urban resident fishing

While rural anglers caught the fish as part of their daily chores or routines,

urban residents caught them in varying amounts for consumption.

Urban resident Carl Gaensslen (Green River, Wyo.) explained when he would do much of his fishing.

“Well, I went (fishing) almost every Sunday,” he said. “The family went on a picnic or something up the river or down the river, and so we’d fish with my dad and my brother. And then at other times, kids that were in school with me, grade school and that, maybe a half a dozen kids around town, I fished with.”

Gaensslen’s family fishing story was indicative of what many urban residents reported. Bennett Young (Palisade, Colo.) remembered going to the “government dam” above Palisade in the 1930s on weekends with his family.

“Well if you’d go up on the weekend you’d have to go up in the horse and wagon or Model T going up there. You had a hard time getting out on the piers and getting a seat to snag suckers,” Young said. “It’d be full of people. Yeah, you’d have a lot of people going up. Transportation was the main thing, to get up there. Yeah, my folks used to go up there, and we made an all day trip out of it.

“It was nothing to go up and get a gunny sack full of suckers up at the dam by snagging. We’d sit on the wall and have a three-point hook, you know, a treble hook with a heavy weight and just set there and snag them. There was no limit on them just ... they were just laying in there.

“They used them (suckers). They didn’t throw them away. They were used for food and fertilizer and things like that, you see. We planted young peach trees and put a sucker in there ... put the peach tree right on the sucker.”

Lawrence Hastings (Green River, Utah) remembered Green River residents visiting their farm to harvest fish.

“There used to be a lot of these humpbacks and the regular suckers. They would make their regular runs to spawn,” he said. “They would go up there through the wheel pit and there was a wad of them at that time. People would come up here and get them by the washtub full. We didn’t use them, but other people did. They’d take them home and can them.”



Photo courtesy of Wendell Johnson

Kenneth Johnson and a Colorado squawfish caught in his family’s metal fish trap.

Other uses for endangered fish

Lyndon Granat (Palisade, Colo.) remembered people feeding Colorado squawfish to pigs.

“Farmers that lived along the river there, they’d catch some big ones there on the Colorado above ... between Grand Junction and Palisade there. They’d go

down there, catch 'em and feed 'em to the pigs. They'd use pitchforks. I got some pictures, my sister does, she lives in Amarillo, of wagon loads of the squawfish," he said.

Don Hatch (Vernal, Utah) would bring fish he and his father seined from the Green River into Vernal and give them to the townspeople, some of whom he thought used the fish for fertilizer and chicken feed.

"I remember we'd dump them all out on the lawn and sort through them," he said. "Some of the townspeople would come and get the fish. I'm not sure what they'd do with them, even use some of them for fertilizer, and I think they'd use them for chickens, grind it up for poultry."

Kenneth Johnson (Delta, Colo.), who trapped Colorado squawfish from the Gunnison River talked about feeding fish to his family's chickens: "All I can remember is if there was a fish we wanted to eat, we used it, if there weren't, we hung it up on the fence and slashed it for chicken feed."

Steve Radosevich, a Browns Park rancher and ex-Utah game warden, recalled feeding razorback suckers that he caught in the Green River to his cats.

Green River fish were used for coyote bait, according to ex-Browns Park rancher Bill Allen (Vernal, Utah). Allen remembered a coyote trapper using a chicken wire fish trap to catch fish for bait during the 1930s and 1940s.

Tom Hastings (Green River, Utah) also used to feed his cats river fish: "We caught them roundtails, bonytails and suckers. We didn't do anything with them. If we happened to catch them, we'd toss some of them to the cats," he said.

Chapter 3

Characteristics and distribution

23

"When I first come out here, you'd go down in the lower country where the Yampa empty into the Green and stuff and you'd catch squawfish there, some of them sons a gun were as long as I was. I expect they'd weigh 80 to 100 pounds."

Roy Lewis, Steamboat Springs resident

Big fish stories

Although difficult to substantiate, stories of enormous Colorado squawfish in the 5-foot, 80-pound plus range, like Roy Lewis' story, were recounted by seniors throughout the basin. In addition, numerous stories, some accompanied by photographs, were told of fish in the 20- to 40-pound range.

A first-hand reference to an enormous Colorado squawfish was made by Herbert Snyder (Grand Junction). Snyder recalled what he estimated to be a 5-foot, 80-pound Colorado squawfish caught in a seine net in 1926 from the Colorado River.

In recalling the incident, Snyder said, "Well if I remember there was a lot of suckers and carp, but the thing that stood out in my mind was that big fish. I couldn't figure out how the hell they could get a big fish out of that stream that was no bigger than the river. Of course the river was bigger back at that time.

"I was no good with fish at that time, but I was interested in what kind of fish it was, and I was told it was a minnow — a member of the minnow family, that's what it was. And hell, minnows are what you put on the end of a hook. That's what stuck in my mind — how the hell one of those little fish got that big.

"... this fella was carrying that fish, I don't know how he had, but he had it over his shoulder and the tail of it would almost touch the ground, and I would say he was at least 5-feet tall. So it was a pretty good sized fish."

The enormous Colorado squawfish was caught as Grand Junction residents were catching fish for a community fish fry.

Another big Colorado squawfish account comes from Tim Merchant (Green River, Wyo.). Merchant recalled his grandfather catching fish, "as big as a junior high school kid" during family picnics to the Green River in the early 1950s.

In addition, Merchant recounted seeing two enormous Colorado squawfish, one going "well over 60 pounds," while scuba diving in Flaming Gorge Reservoir: "I saw two squawfish in either 1968 or '69 still alive in the lake. I used to dive extensively down there, a friend of mine and I. Either '68 or '69, I don't remember. My Chevelle was new, so that's how I know. We drove down there to Sheep Creek. We were spear fishing killing, carp ... just doing some diving. The water was real clear and about noon that day you could see probably to

about 25 feet. And two of those squawfish came through, and I know a carp from a squawfish because I've seen 'em before, and the water was real clear and one of them was just absolutely huge and the other was I'd say 20 to 30 pounds. We got a good look at them, they were swimming through kind of heading toward where the water ... Sheep Creek comes in. They turned and headed back toward the open lake, and we never saw them again."

Ted Cook (Green River, Wyo.) remembered stories from his brother-in-law about the Colorado squawfishes' size.

"This Colorado salmon was a big fish," Cook said. "It was developed, the way I figure things, probably in the 'olden' days. I had a brother-in-law, he was born and raised here. He was born in 1895. Now he told me that there used to be a lot of them in the river. A lot different from what it was when I came around here and fished for them. He said that he never did weigh them, but he said he's caught them, and he's just stuck a willow through their mouth and put 'em over their shoulder, and they was dragging pretty near the ground, that make 'em about 4 feet long."

Brigg Larsen (Moab, Utah) recalled hearing of old timers hooking fish onto their saddle horns and having the fishes' tails drag the on the ground.

Don Hatch (Vernal, Utah) also heard stories about big Colorado squawfish caught from the Green River.

"I know my family would say that they'd put their arm down their throat clear to their shoulders, down in their mouth," he said. "I seen a picture of one with the guy sitting on the horse holding the fish with his hand, while he's sitting on the horse and the tail is dragging down."



Photo courtesy of Wendell Minkley

Two large Colorado squawfish hang off a burro.

Gene Bittler (Maybell, Colo.) recalled a story about 5-foot long Colorado squawfish caught in the Yampa River.

"Well, I've heard another story from the '30s when the river went dry somebody picked one out of hole down there by the park and hung by the gills on a saddle horn, on a little mustang horse that was no bigger than like a Welsh pony and the tail fin was dragging ... in the neighborhood of 5 or 6 feet," Bittler said. "I've heard this story enough that I think that maybe it had to be true."

Kenneth Bailey (Hayden, Colo.) homesteaded in the Cross Mountain area and remembered a Colorado squawfish being caught in Lily Park.

"Some of the people told me that these was squawfish. Well at the time nobody called them a squawfish," he said. "They called them a whitefish, and they caught 'em out of the Yampa down there that'd go anywhere from 30, 40, 50 pounds. But everybody called them a whitefish and they were kinda built something like salmon. They had pretty heavy scales."

Bailey remembered one family catching a particularly large Colorado squawfish: "The name was Vascum and they caught one and the gate going into the yard ... that post was about a 5-inch post in diameter. And they caught one of these whitefish, and they cut his head off and slid his mouth down over the top of this here post and had him there on the gate going into the yard. He was probably about 50 pounds because his mouth ... you see the post was about this big around and they just slide the mouth right over the top of it."

The biggest Colorado squawfish Dale Stewart (Vernal, Utah) ever caught weighed 26 and-one-half pounds, but he and his brother, Max, knew of a 60-pound Colorado squawfish being caught in a seine and a 49-pounder being caught on a setline.

Dinosaur National Park Ranger Glade Ross recalled seeing a picture of a large Colorado squawfish hanging off a horse: "You know I've seen somewhere in Vernal there is a picture, and I don't know where the hell it is, I've been trying to trace it down. But there's a picture of a squawfish on a saddle horn of a



Photo courtesy of Carl Gaensslen

A large Colorado squawfish caught in the upper Green River.

horse, its hooked in like this and comes clear down the side of the horse and damn near reaches the ground.”

The Washington Post newspaper printed an article May 5, 1935, that referenced stories about 60- to 80-pound white fish (Colorado squawfish) in the Yampa River. Two paragraphs in the article written by Jean M. F. Dubois read:

“At the mouth of Johnson Draw the stream was as calm as a peaceful lake and deep. We speculated as to the fish there. We had been told of a large white fish weighing from 60 to 80 pounds that frequented deep pools. It was the story that an entire cottontail rabbit was used for bait. Many were the tales of this game fish which was to be found in this part of the Yampa and in the Green River nearby.

“Several times we fished. In great hopes, but we had no luck. The stream was low and the schools must have moved farther down the river to the deeper waters of the Green. However, I did bring back several heads and a skin as proof to the outer world that these fish actually exist. In fact, one head came from a fish that weighed at least 40 pounds.”

How big was that fish?

Many of the stories the seniors told about big Colorado squawfish leave one wondering about how big the fish actually were. Bill Allen, (Browns Park, Utah) recalled a story about a huge Colorado squawfish scaring one of his neighbors.

“I heard the story about Bob Teeter and Jes Taylor,” Allen said. “They had a big flood at Red Creek, it raised 7 feet. They said it come down and then big fish were just rolling on top of the water, you know. Bob Teeter said they had caught some of them whitefish and canned them, but he said one come up there and when it rolled over he said he was going to grab but it was so big it scared him, he let it go. He didn’t even try to take a hold of it.”

Allen recalled other large Colorado squawfish caught in Browns Park: “They caught some pretty good sized ones, but mine are about the biggest I know of. They talked about that. It was a 15-pounder and a 20-pounder. I was working there on the bridge for Stanley Crouse. We ate them. The one, I got a pretty good-sized fist and we cut the head off, and you could stick that right in his mouth without even touching it. He was pretty good size. There was two kinds of those whitefish. One was a little shorter and blockier and his head was a little bigger. He was kind of more heavy set, you’d call it. The others were slimmer and longer and their head tapered a little bit, but they looked like the same fish. There was a little difference in their head and in their nose.”

Carl Williams (Green River, Wyo.) recalled the large Colorado squawfish heads collected by a famed area angler, Harry Murphy.

“Well the only one that I knew, and I wish that I, that, he would have still lived here or his family because he kept the skeleton the heads of all of ’em,” he said. “And like I said some of those heads were tremendous, and when they opened up I say some of those heads were at least 6 inches in length back to the gills.”

Otho Ayers (Paradox, Colo.) gauged the size of Colorado squawfish swimming in the Dolores River in a unique way. “I’ve seen them big enough to shoot

at, big ones,” Ayers said. “We were going along the river with the sun just right, on the trail and the fish, you could see them down there and looked like they were that big and we shot at them a time or two, but we never did get any.”

Tom Swain (Paradox, Colo.) remembered finding a large Colorado squawfish in a driftwood snag in the Dolores River in the early 1920s.

“I’ve seen a white salmon caught in some driftwood, the river used to get so high and go over its banks there and driftwood would catch on fences, and in this driftwood was a white salmon that was a good 3 and a half feet long and about that thick. It was caught in the drift there,” he said.

Twenty- to 40-pound Colorado squawfish

Most of the seniors who recalled catching large Colorado squawfish remembered landing fish in the 20- to 40-pound range.

Wanda Staley (Ruple) (Vernal, Utah) was born and raised in Island Park along the Green River in present day Dinosaur National Monument. Her family frequently caught and ate Colorado squawfish during the 1920s and 1930s.



Photo courtesy of Tom Hastings

Tom Hastings stands next to a 20- to 40-pound Colorado squawfish caught next to his family’s farm from the Green River, near Green River, Utah.

“We used to catch what we called the whitefish. They call them squawfish now,” she said. “We caught them ... well the largest that I know that was caught over there was 35 pounds. We would catch them 15, 20, 35 pounds, you know, it wasn’t uncommon.”

Lawrence Hastings (Green River, Utah) remembered catching a 35-pound Colorado squawfish from the Green River near town.

“We caught one that weighed about 35 pounds. This was when we took it down to the meat market,” he said.

Walt Siminoe (Whitewater, Colo.) remembered a neighbor catching an 18-pound Colorado squawfish from the Gunnison River and he heard of a 24-pound one also being caught.

Other species sizes

Documenting historical sizes was much more difficult with bonytail chubs, humpback chubs and razorback suckers than with Colorado squawfish. Only a few

references were made as to the size of these species.

Carl Morrison (Green River, Utah) remembered his uncle catching a large razorback sucker in the 1940s. “That one that my uncle caught probably was right around 9, 10 pounds. It was a big fish,” he said.

Lyndon Granat (Palisade, Colo.) remembered catching his biggest razorback sucker out of the Colorado River.

"Oh let's see it'd probably be in the late '20s," he said. "Yeah, it had a quite a sharp behind its head instead of coming up around like a sucker back, it kinda come around like that. As it got back toward the dorsal fin it had quite a sharp ridge and then behind the dorsal fin, there was nothing; I mean no ridge there. I'd say probably 2, 2 and-a-half pounds. It was about 20 inches long. That was the biggest one I ever saw. The others that I caught were 12, 14 inches and smaller. They didn't have very pronounced humps. We called them humpbacks."

Although the species is unidentified, Gordon Hodgkin (Delta, Colo.) remembered an enormous sucker being caught and displayed at a Delta, Colo., blacksmith's shop.

"About the first year I came over here, I came once over in 1929 they had a fire there in the store, and Roy Bone had caught a huge sucker," Hodgkin said. "Oh my gosh he had a sucker that looked like, I don't remember now, I'm talking about an 18-, 20-pound sucker. Sucker, they said, they didn't live this long but this was huge. They had a blacksmith shop and they had that displayed in a great big iron, or tin tank of ice. People were going by and taking pictures."

Distribution

Besides the insight to the four fishes' geographic distribution already conveyed by this report, the following discussions offer a few notable recollections about the fishes' distribution.

Razorback suckers/ Green River

Several Green River, Wyo., residents reported large congregations of suckers, including razorbacks, occurring below a dam on the Black Forks River, a tributary of the upper Green River.

Ted Cook (Green River, Wyo.) talked about people catching suckers at the site, including razorbacks, between 1932 and 1934.

"You know they spawned in the spring of the year," Cook said. "Used to be a creek up here, well you know, Blacks Fork branches off over here just here, well, on Flaming Gorge just this end. Well my mother-in-law had a homestead up there like where that potash plant sits now and they had a cement dam across there and those suckers used to go up and spawn right at the bottom of that dam. They used to try to go up over it ... people could really go up and catch 'em in the gunny sacks full. I never did bother."

Carl Morrison (Green River, Wyo.) remembered almost exactly the same story: "My grandmother had a ranch out on Blacks Fork and they had a dam there. And they used to catch them suckers there at the dam in rip-rap, you know how they have all them big rocks on the sides of dams. They used to reach in there and get them suckers; they used to bring suckers home by the sackful. Not me, I was too small. That was Blacks Fork."

Bill Allen (Vernal, Utah) remembered catching razorback suckers in a gill net placed in the Green River in Browns Park in the 1930s.

"It was about 30 feet long, you would fasten it there and to the bank and then take a boat and take it out in the river," Allen said. "They would swim through it and get caught in it. Every morning we would go and pull it in. We

got a lot of them suckers and roundtails and some carp. We never did keep the carp. Now the carp in that river weren't muddy like a lot of them, but you could eat them, but we didn't care for them. Then there was that humpback squawfish, that's what we called them, the razorback. Their head wasn't too big and right behind the head was a bone that would come right up like this and then come back through the back and it was sharp, just narrow up there. It was a razor-back."

Tom Hastings (Green River, Utah), who lived along the Green River just upstream from the town of Green River, remembered razorback suckers being "thick" in the raceway underneath his family's water wheel.

His brother Lawrence also remembered the suckers: "There used to be a lot of these humpbacks and the regular suckers, they would make their regular runs to spawn. They would go up there through the wheel pit, and there was a wad of them at that time. People would come up here and get them by the washtub full."

Large concentrations of suckers were reported to have existed in the Duchesne and Price rivers in Utah. Frank Ross (Green River, Utah) recalled: "In the Price River up there it'd be lousy with them (razorback suckers), Duchesne River too, it'd be lousy with them. I never did see them in the Duchesne River, but I heard about them. I think, in the Price River they seined. Those coal miners, I think they used seines. Probably Greeks, you know, they come from the old country, they ate a lot of fish. I'm talking about way back when."

Razorback suckers/Yampa River

Kenneth Bailey (Hayden, Colo.) remembered catching razorback suckers in the "lower country," where the Yampa and Little Snake rivers meet and flow through Lily Park.

"Well once when you got down there below ... we saw two of 'em down there," he said. "I never caught many up here. That's a humpback sucker."

Razorback suckers/White River

Glen Glasgow (Meeker, Colo.) used to bait fish for suckers in the White River adjacent to town in the springtime, but he said they never caught any razorbacks nor Colorado squawfish: "I don't think the squawfish are up at this elevation. They were further down the river. I know that I caught some, yeah."

Razorback suckers/Colorado River

Near Debeque, Colo., Ray Case (Debeque, Colo.) remembered his wife occasionally catching what seemed to be razorback suckers from the Colorado River.

"If you'd go down through the corral and there was the river. It had a sandy beach in front of the corral," Case said. "I seen suckers come in feeding, I guess, in front of that corral. She did catch some. They must have weighed 4, 5 or 6 pounds. There ain't no doubt about it, they was big fish. Some of them had sort of a hump in back of their head and some of them were straight shaped."

According to Case, a popular spot to catch suckers, including razorbacks, in the Colorado River was the roller dam located above Palisade, Colo. Case took his family to the dam between the years 1944 to 1949 to fish.

"We come in on the west side of that bridge and go around on the concrete

wing,” he remembered. “By god we’d catch a bushel basket full of them suckers. Some of them I could hardly get up over that wall. The water was kind of backing up into that wall there, and it seemed like they had a kind of a box there; it’s still there. One time I think they had a headgate in there. And that’s where we’d fish.

“By god those two kids of ours would jump up and down and squeal and catch them big old suckers. And they were all suckers. I never caught a catfish, never caught a trout, very few people did,” Case said. “They were sort of... they were the humpback, some of them. I’d say some of them down there were around 3 or 4 pounds. You’d see people down there doing a food harvest. Man they’d get a lot of fish right there.”

Arthur Daugherty (Clifton, Colo.) remembered catching razorback suckers through the 1940s in the Colorado River.

“No, they didn’t disappear that fast, you know,” he said. “From the time we fished to say in the ’40s when I begun the railroad here, when the war was going on, they was still around even in the ’40s. I was really surprised they said they was getting extinct and needing protection.”

According to Lyndon Granat (Palisade, Colo.), who grew up on an orchard adjacent to the Colorado River, the razorback sucker wasn’t very common in the river between 1920 and 1935.

“Well I tell you they (razorback suckers) weren’t common, I would just guess that in the 10, 15 years that I was fishing in the river there, that I maybe caught three or four total,” he said.

Robert Stow (Moab, Utah) remembers catching razorback suckers in the Colorado River, upstream from Moab in the early 1960s.

“I caught one with ... that had the hump on its nose, it come back and it got the forked tail. There was probably two different kinds. The one, I noticed, had that hump on its head there,” he said. “Every time I went I probably caught three or four of the suckers and two or three of the squawfish. I’d say about half of them, two of them would be the humpback with the nose like that, and the other ones would be the regular old sucker with the white belly.”

Lawrence Day (Moab, Utah) said that razorback suckers were not prevalent in the Colorado River, but he did remember one caught in a beaver dam around 1968 and seeing another one swimming. “I’ve never caught a humpback sucker, never,” Day said. “I’ve seen two of them. One of them was in a beaver dam, going into sloughs, he must have weighed about 7 pounds, he was caught in the brush and stuff in the beaver dam. The other time I seen one it was swimming in the shallows.”

Razorback sucker/Dolores River

Otho Ayers (Paradox, Colo.) remembered catching what sounds like razorback suckers in the Dolores River. Ayers, born in the Dolores River canyon in 1913, reported “fishing all his life” on the Dolores and catching suckers that had a big hump “once in while.”

Although Tom Swain (Paradox, Colo.) didn’t identify the fish as razorback suckers, he recalled suckers moving into the Dolores River in what seemed a spawning run.

“Of course the suckers made this run up the river as it was flooding and usually were there a month while the river was wide, you’d catch a lot of them,”

Swain said. "About all we caught in there at that time was suckers."

Razorback suckers/Gunnison River

Prior to 1918, Walt Siminoe (Whitewater, Colo.) recalled catching razorback suckers in his trammel net at the confluence of the Gunnison River and Kannah Creek. According to Siminoe about one-third of the 50 to 75 fish they netted were razorback suckers.

Wendell and Kenneth Johnson (Delta, Colo.) remembered razorback suckers being prevalent during the 1940s and 1950s in the sloughs and irrigation ditches on their farm along the Gunnison River downstream from Delta.

"The humpbacks, there was lots of humpback suckers when we were kids. Yeah, they're just thick, those humpback suckers," Wendell said. "Back in the '50s, late '40s, I can remember, see we had the Hartland Ditch and we would shut the water out. When you shut the water out, you know the fish would be in there thick, and hell you could go in there with the wagons, and I'd bet every half a mile you could load a wagon with fish from it. There was that many fish in it.

"Well a lot of them were yellow suckers and you had the ones that had the hump on the back and then you'd have the grey bellied ones. We had a lot of humpbacked sucker. We'd catch 'em in the round bail too, carp and suckers (in the fish trap)."

Upstream, several Delta residents recalled suckers being caught in large numbers, although none of the recounts specifically identified razorback suckers as being included in the catch.

Colorado squawfish/Green River

In general, Colorado squawfish populations in the upper Green River around the town of Green River, Wyo., reportedly declined from the 1930s up to the installation of Flaming Gorge Dam. Numerous accounts from seniors indicate the fish at one time was moderately abundant in the area but declined with the advent of human factors such as pollution and destruction of habitat. (For detailed recollections about this see Chapter 4, Human Impacts on the Endangered Fish.)

Ex-Browns Park rancher Bill Allen (Vernal, Utah) recalls Colorado squawfish being plentiful in the Green River in Browns Park up until 1934.

A description about the numbers of Colorado squawfish trying to swim up a waterwheel channel on the Green River, near Green River, Utah, was offered by the Hastings brothers (Green River, Utah).

"Well, they (Colorado squawfish) wouldn't crowd, they weren't that thick. You'd see three or four of them there at a time. They be running there. You had to watch for them," Lawrence Hastings said.

Colorado squawfish/Yampa River

Retired game warden Bill Roland (Craig, Colo.) didn't remember Colorado squawfish or any other endangered fish being caught in the Yampa River near Craig. "I heard of these large whitefish, they called them," Roland said. "But there weren't many caught up in these upper reaches here. This is too high up. They were down in the canyon and they were in Lily Park. I believe, I know, they were in Pat's Hole in Yampa Canyon. And they were in Lily Park, and I

don't know really of ever seeing them up here."

Colorado squawfish/White River

Glen Glasgow (Meeker, Colo.) reported a Colorado squawfish being caught as high up as three miles west of Meeker: "My father caught a squawfish one time that weighed 16 pounds just about three miles west of here," he said.

Colorado squawfish/Colorado River

Bennett Young (Palisade, Colo.) remembered Colorado squawfish being rare in the river. He fished it in the late 1920s and 1930s.

"Salmon (Colorado squawfish) were scarce on the river, lots of carp," Young said. "The carp were there on account of the sewage coming down and the suckers too. I can't remember ever seeing them. On the canning, my mother used to can them these fish. That was our salmon or that was our fish, you know, like canned salmon. That's all they had for fish, suckers, and like I say catfish and salmon. But we didn't catch many too salmon, mostly suckers. But I never seen very many of these humpbacks."

On the other hand, Lyndon Granat (Palisade, Colo.) remembered catching Colorado squawfish that were quite "prolific" in the Colorado River between 1920 and 1935.

"And we caught what we called white salmon, which is the squawfish. And they were quite prolific, we caught lots of them," Granat said. "They usually ran from 14, 16 inches on up to, I never did catch one that big, but I seen them that big, 5, 6 pounds."

Charles Inglehart (Fruita, Colo.) recalled catching a large Colorado squawfish that wouldn't quite fit into a gunny sack.

"I hooked one (Colorado squawfish) that just stuck out of the top of that bag that morning," he said. "I came in and I threw it out on the little table, I was down at my folks and my grandmother was visiting, she wanted to know what kind of fish it was and she said that 'I'd like to have a piece of that fish,' and I said well they're kinda of bony and I thought I'd just give it to the chickens. She went in the house and got a butcher knife and she had a piece of the darned old squawfish as you call it."

Colorado squawfish/Gunnison River

At one time, the Colorado squawfish population in the Gunnison River was actually believed to be increasing. In the September 1947 edition of Conservation Comments, the story "Minnows swallow trout" states that the Colorado squawfish was growing in numbers and moving up the Gunnison River. "Field reports indicate that this species of large minnow is on the increase in Colorado waters, and that they may be also working upstream in recent years."

Confirming the Colorado squawfishes' abundance in the Gunnison River at about the same time (early 1950s) were Wendell and Kenneth Johnson (Delta, Colo.), who grew up on a farm along the river and caught Colorado squawfish in a metal fish trap.

"We used to have a round ... oh made out of rabbit wire with a funnel deal that the fish would swim up in there and when they got in there they couldn't get out," Wendell said. "And shit we'd go down there and there's times you couldn't

even pick the damn thing up there'd be so many squawfish in it. We had 18 pounders, a lot of them average, I'd say about 9 pounds."

Wendell offered a theory about the squawfishes' abundance in the river.

"But you know my conclusion on the squawfish, what happened to them, is there's no feed in the rivers anymore and it used to, you know Delta emptied all their sewage into it, Hotchkiss, Paonia," he said. "You could walk along that riverbank, you'd see apple peeling, cores, everything that was dumped out of the canning factories, the packing house down here at Delta, they dumped all their blood and hell chicken guts, I mean everything they didn't have a byproduct went right into the river. Hell those damn fish just grew like crazy and ate all the time and you take a fish as big as these squawfish was, as many as they was, hell they had to have a lot of feed. If you were to get squawfish back in this river the way they were then, in the '50s, you'd have to dump 20 ton of feed for them."

Humpback chub and bonytail chub

Discussing the distribution of these two species is extremely difficult due to problems in confirming the seniors' identification of the chubs. As discussed in the next section, seniors often lumped the description of any chub-like fish under a single generic name: "bonetail."

Despite this problem there were a couple of senior recollections not previously mentioned who alluded to the presence of bonytail and humpback chubs in the upper basin.

Lyndon Granat (Palisade, Colo.) remembered catching what sounded like humpback chubs near his family's fruit orchard along the Colorado River in Palisade. Granat fished the river between the years 1920 and 1935.

"Well we caught bonytails, which I think is what they call a humpback chub now," he said. "They had a hump behind their heads and a round thin tail just before the tail fan. They would run usually from 8 to 12 inches. You never caught them real big, once in a while you'd catch one."

Tom Swain (Paradox, Colo.) talked about the existence of Colorado squawfish and what could have been bonytail chubs or roundtail chubs in the Dolores River in the early 1920s.

"There was a few great big ones (Colorado squawfish) and there was a few younger, smaller ones you'd catch," Swain said. "There was occasionally what we call squawfish, or white salmon I guess they call them. They were pretty rare. We always called them bonytails. They always had these bones in tail section of them."

Other than these accounts and those in previous chapters, the seniors did not distinguish between the species convincingly enough to prompt more discussion on the bonytail and humpback chubs' distribution and abundance.

Fishy names

Upper basin residents used many different names to refer to the four endangered fish species. Terminology varied between large areas and drainages and within confined geographical areas such as towns.

Humpback chubs, bonytail chubs and roundtail chubs

Bonetails, bonytails and squawfish — these were three names freely used



Photo courtesy of Verlyn Westwood

An unhappy Mary Rutledge poses with a stringer of bonytails and a Colorado squawfish caught near Moab, Utah, around 1920.

by many upper basin seniors to describe river chubs and sometimes Colorado squawfish. They were used so freely by the seniors that it often was difficult to discern which fish they were referring to.

Dick Sherwood (Whitewater, Colo.) responded with the following description while looking at a bonytail chub picture: "I'd call that a roundtail, a bonytail. Now the thing of it is, we called these fish anything, slickies, chubs."

Carl Williams (Green River, Wyo.) described what appeared to be the humpback chub by the term "buffalo fish."

"Buffalo fish, not a sucker, we didn't call them a sucker. Buffalo fish was more like these bonytails only they had a hump on ... kinda a hump on their back fin in front of their dorsal fin," he said. "Yeah, we caught those. Oh, God I'd said the biggest one I caught was probably 16 to 18 inches, most of 'em smaller, eight, 10 inches."

In Chuck Mack's (Craig, Colo.) unpublished essay titled, "Fishing for the Endangered Species," the term 'broomtails' is used to name bonytail chubs.

"The ones I liked to catch were the bonytail chubs," he wrote. "We called these broomtails. They were easy to carry because you could get a firm grip on their bony tail."

Charles Inglehart (Fruita, Colo.) and Lyndon Granat (Palisade, Colo.) had anglers' names for the bonytail chub. Inglehart termed them "bait stealers," and Granat termed them "bush trout," because he sometimes tossed them into the bushes near the river.

Colorado squawfish

"White fish, white salmon, Colorado River salmon, Colorado white salmon, landlocked salmon," and "silver salmon" — these were some of most common names used to describe the Colorado squawfish in the upper basin. The confusion over the Colorado squawfish's identity has deep roots, as evidenced by an article in the Feb. 6, 1919, edition of the Moffat County Courier:

No protection for suckers

"What is a squawfish?

Members of the house of representatives recently betrayed their ignorance of this vital question, when Representative Noonan introduced an amendment to the fish and game law providing that there should be no closed season on 'whitefish, squawfish, suckers and carp.'

Suckers! Squawfish! We'll bite.

What's a squawfish?

Mr. Noonan made no explanation, but one member hazarded the guess that it was the Indian for mermaid."

Gene Bittler (Maybell, Colo.) recalled the squawfish/chub mixup.

"At the time we called the roundtail chubs 'squawfish,'" Bittler said. "I don't know how the heck the nomenclature got changed, but I can't imagine the old-timers calling it one thing and then all the sudden it's changed ... But they called the roundtail chub — the one that gets the pink stripe in the fall — they called that squawfish and they called the whitefish — these squawfish — they called it whitefish. They called it big-mouth whitefish."



Photo courtesy of Carl Gaensslen

Carl Gaensslen and his buddies pose with a 'whitefish' (Colorado squawfish) caught out of the upper Green River in the early 1920s.

Carl Gaensslen (Green River, Wyo.) recalled the difference between bonetail and a whitefish: "Then there used to be what they would call ... we'd call them bonetails. Now they were a whitefish with scales. Something like the squawfish only not near as big and the shape ... the back end of the thing, the body was quite thin. Just about in front of the tail fin there was quite a long ... I mean the body was quite thin through there."

Jim Smith (Steamboat Springs, Colo.) recalled catching a "shovel-billed" squawfish once in Browns Park.

"I was down there in Browns Park and I caught one of them," he said. "That old man, he told me that was ... a shovel-billed squawfish."

Razorback suckers

Razorback suckers were called buffalo suckers in Green River, Wyo.

"We also had a few of what we called at the time a buffalo sucker. I don't know if you ever heard that name mentioned, but there was what we called a buffalo sucker because of the hump in its back. You'd catch a few of those," said Carl Williams (Green River, Wyo.).

Katharine Rinker (Lily Park, Colo.) recalled catching razorback suckers and calling them squawfish. When showed a photograph of a razorback sucker, she responded: "We call those squawfish. Humpback squaws. Yes, they have lots of bones."

Bill Allen's (Vernal, Utah) recollection of the razorback sucker's name while looking at a photograph shows just how confusing and varied the endangered fishes' names could get: "Now that was the humpback. We'd still call them roundtail, but we called them humpback roundtails. I don't know what for ... squawfish ... but we called them kind of a humpback squawfish sucker."

Chapter 4

Human impacts to the endangered fish

37

"I remember when they poisoned all the fish, how the fish was just ... it stunk all along the river where all the fish they died ... all the way through the park. What mom said was they put something in to take all the oxygen out of the water, that's how they killed 'em. It was ... I mean the banks was just lined with fish."

Bobby Allen, Browns Park rancher

Of all the human impacts the endangered fish have been subjected to in the upper basin, none is more pointed than the rotenoning of the upper Green River to make way for the drastic habitat changes and trout fisheries brought by the Fontenelle and Flaming Gorge dams. While the rotenoning project undoubtedly killed native fish in the upper Green River, it represents only one destructive cog of many leading to their decline.

"The whole basin was under a water development program, and those fish had been adapted for silty streams, free-running streams, and they were certainly unique, but once you cleared the water up and you change that whole thermal regime, the habitat was no longer squawfish habitat," said Fred Eiserman, ex-Wyoming manager of fisheries and co-director of the rotenoning project. "It was a habitat (the upper Green River) just fitted for the razorback and squawfish and you change the whole habitat by creating a heck of a big reservoir and then a clear water stream down below the reservoir. You had two reservoirs in the system, a complete change of habitat, and I think we were just one more nail in the coffin ... I don't think that the fish would have existed anyway."

Rotenone project co-director Al Regenthal, ex-Utah Division of Wildlife Resource supervisor of fishery research, agreed with Eiserman and explained the changes in the fishes' habitat after the dam projects.

"The difference between before and after was like night and day as far as the river was concerned," Regenthal said. "Before that the Green River was a 'blow-out stream.' You could walk across the mud sometimes the way it got when the spring runoff came. The banks shifted; the sand shifted. The substrate shifted; islands appeared in the river, were washed out the next year, so it was a blow-out stream. And of course as soon as the dam started in place, then the water cleared up and all of that type of thing ceased happening. We didn't have a large disparity of flows where you blew it out in the spring and hardly had a trickle in some areas in the hot summer. So I think the habitat changed so radically that there were bound to be changes in the biota.

"The overriding decision was made when you decided to build the dams — that condemned some of those species. That's not their habitat, and you see that today. The Yampa's still untamed, and for that reason, there's still fish in the Yampa. The Green River of today is nothing like the Green River of yesteryear.

"Anytime we meddle one way or the other with the stream, we change things and nobody is trying to deny that, but the point here was just simply that

we made an assessment that the overriding change would be the change in the stream itself and some of things that would be eliminated in this process of treatment were about to be eliminated in the process of evolution. That wasn't our decision as to whether that occurred or didn't occur, that was already decided. Our decision (to rotenone) was made secondarily to change the environment."

Paving the way for trout

Touted as project to rid the area of "coarse fish," the rotenoning project, which occurred between Sept. 2, and Sept. 8, 1962, was supported by a majority of the public, according to interviewees and newspaper clippings.

The project was reported to have been the biggest ever attempted in the nation. It covered more than 445 miles of the upper Green River and its tributaries. The chemical was distributed by a series of 22 drip stations spaced approximately 10 miles apart.

A typical station consisted of a cable stretched across the river carrying a plastic tube. Spaced along the plastic tube were "T" valves, which allowed the rotenone to drip into the river. The chemical was distributed via gravity into the tubing from barrels placed on shore. It was estimated more than 21,000 gallons of rotenone were used in the operation.

To apply the rotenone to backwaters and sloughs, backpack dispensers, air-boats and helicopters were used.

The project's area extended north to almost as Pinedale, Wyo., and south to a detoxification station on the Swinging Bridge above the Green River, adjacent to the Colorado-Utah state line.

More than 100 men from the Wyoming, Utah and Colorado game and fish departments participated, as well as personnel from the U.S. Fish and Wildlife Service, according to a Green River Star newspaper story.

Prior to the actual project, a series of public meetings was held to inform

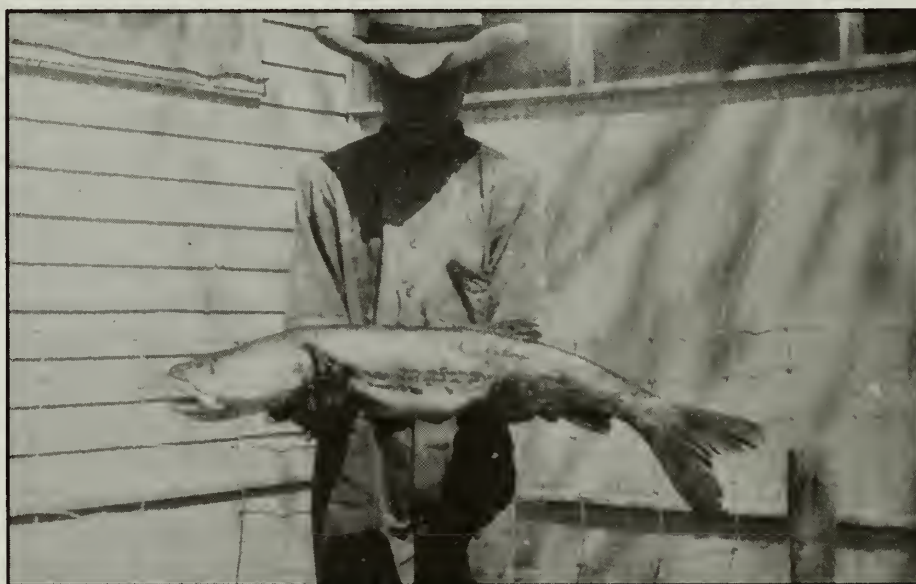


Photo courtesy of Dale Stewart

Fritz Stewart holds a Colorado squawfish caught near Jensen, Utah, in the early 1930s.

people of the operation. During those meetings there were no indications of public discontent toward the project, according to Eiserman. News clippings and interviews with area seniors seem to indicate that there was widespread approval of the project.

"So far as the people that were in that area at that time, I don't recall having anybody step up at any of the meetings we had concerning that program and say, 'We don't think it's a good idea,'" Eiserman said. "We got some negative flak from other parts of the country, mostly I think from Miller fish taxonomists and folks that were more zeroed in on the various fish species that were part of the complex of aquatic life in that drainage, but the people locally were in favor of it.

Rock Spring's Daily Rocket newspaper headlined its Sept. 7, 1962, edition with "Successful Stream Rehabilitation Rids Green River of Coarse Fish."

In a pre-project story published Aug. 30, 1962, the Green River Star newspaper wrote: "The purpose of the program will be to depress non-game fish species in favor of good game fish populations. Similar programs, carried out in other states, have proven that reduction of non-game fish populations have resulted in improved trout fisheries."

A cutline under a photo in the The Daily Rocket newspaper's Sept. 3, 1962 edition read: "Without the rehabilitation, the Wyoming Game and Fish Department said, such rough fish would make it impossible for maximum trout populations ever to be established. In addition, the coarse fish populations would eventually spread upstream into areas of the upper Green River which are presently prime trout waters."

The prospect of having trout fishing in the upper Green River was welcomed by a majority of the local seniors interviewed, for example:

Ted Cook (Green River, Wyo.): "I was happy they did it (the rotenoning). I think everybody was tickled to death. I never heard anybody saying ... you know, downing it. Because there was no trout down in this area. Because there was so much chub and trash fish there was no trout."

Don Larimore (Green River, Wyo.): "That river, the trouble with that river it was a no good because of the trash fish in it, and they killed all the trash fish."

Tim Merchant (Green River, Wyo.): "Everybody knew Flaming Gorge was coming in, and we were going to make a big trout fishery out of it. I think everybody was basically happy."

Steve Radosevich (Browns Park, Utah): "Well, for what they intended, to make this a river for trout fishing, yes it (the rotenoning) was a help."

Eleen Williams (Dutch John, Utah): "Well, the fishing part didn't matter to me that much. I was glad they were going to get rid of them so we could have some trout. Of course the fish has made the recreation in the area here."

A great success

The project was termed "a great success," in the Rock Springs Daily Rocket newspaper's Sept. 7, 1962, edition.

In quoting Eiserman, the Daily Rocket wrote: "Although the stories told by Green River fishermen vary, Eiserman said the largest fish that he had heard of being taken from the river was a 20-pound carp.

"The largest game fish, he said, was an 11-pound brown trout. There were many other varieties reported, among them suckers, which weighed up to 3 pounds, squawfish, bullheads and several kinds of trout."



Photo courtesy of Wanda Staley

Colorado squawfish seemed to always end up on horses. Here's Billie Ruple Wintermann with a Colorado squawfish caught in Island Park around 1930.

At the time and in the region, squawfish was a common term to describe chubs. According to Eiserman in a contemporary interview, no Colorado squawfish or razorback suckers turned up from the rotenoning.

"I don't think there was a dead (Colorado) squawfish recovered in the area that I had responsibility for, and I don't think Al Regenthal's group found any squawfish as a result of that," he said.

According to a follow-up report published by the Wyoming Game and Fish Commission (Binns, 1967), the rotenoning project was a success:

"An evaluation can best be made by considering the development of the treated area in the two years since treatment. Fisherman use of the Flaming Gorge Reservoir and the Green River upstream has far exceeded the most optimistic pre-impoundment estimates. Fishing has been excellent and planted trout have shown good growth rates. Non-game fish populations have become re-established in the treated area, but to date have remained relatively unimportant factors in interspecific competition.

"All investigations to date indicate that the Green River Rehabilitation Project, from a fishery management standpoint, has been successful in attaining its basic objectives. However, nongame fish populations in the lower treated area appear to be increasing and may again reach problem status at some time in the future."

The same report also contains a discussion about changes in the species inhabiting the river following the treatment:

"A comparison with pretreatment data (Binns, et al., 1963; Bosely, 1960; McDonald and Dotson, 1960) shows that several changes have occurred. Channel catfish, Colorado River squawfish, humpback suckers, black bullheads and yellow perch had not been

found at the close of study. New species include the lake trout and kokanee salmon.”

Pre-rotenone presence of razorback suckers, Colorado squawfish

Despite the findings that Colorado squawfish and razorback suckers were removed from the river, evidence indicates that they were not common in the upper Green River prior to the rotenone project.

A study conducted in 1959 by the University of Utah Department of Anthropology (Smith 1960) suggests that Colorado squawfish and razorback suckers were rare in the upper Green River prior to the rotenoning. Of the 4,837 fish captured during the study from 38 river and tributary sites between Skull Creek, which is near the Flaming Gorge Dam site, and the city of Green River, only two of the fish were Colorado squawfish, and only one was a razorback sucker.

Other scientific studies (Simon 1946, Hubbs and Miller 1953, Smith 1959, Gaufin et al. 1960, Sigler and Miller 1963, Banks 1964, Vanicek et al. 1970, Holden and Stalnaker 1975a) referenced in the “Status Review of the Razorback Sucker” (Bestgen 1990), indicate that “razorback suckers were apparently rare in upstream reaches of the Green River in Wyoming, even prior to the impoundment of Flaming Gorge Reservoir.”

Eiserman also believed that most of the fish native to the Green River adjacent to the town of Green River were already rare prior to the rotenoning project.

“Right in the very beginning there was some flak about us treating that drainage, but you know where the Colorado squawfish and some of those species that are species of concern in those days, they were already wiped out by pollution on the river,” he said.

Supporting this claim are the recollections of senior citizens.

Carl Williams (Green River, Wyo.) remembered his father’s surprise when the two of them almost landed a Colorado squawfish in the early 1950s, years before the rotenoning project.

“My dad, he wasn’t a sports-fisherman, he was a fishing hound, and I caught this fish (Colorado squawfish), and he says, ‘Boy, it’s been a long time since I’ve seen one of them,’ and he stooped down in the water to help me land it, and it got away. And that’s the last one I’ve seen,” Williams said.

According to Ted Cook (Green River, Wyo.) the Colorado squawfish were gone from the upper Green River before the rotenone project. “They just slowed down and didn’t show up,” he said.

He reported to have followed the rotenoning project closely without finding any dead Colorado squawfish: “I followed that down, every station clear down. There wasn’t a one of those fish poisoned in that river. That’s what I followed it for, just to see what fish was in the river. You see, all you got was carp and suckers and trout.

“You know out of all that there wasn’t a catfish that was poisoned nor one of these whitefish (Colorado squawfish) that was poisoned.”

Several seniors cited pollution as contributing to the Colorado squawfishes’ scarcity in the upper Green River. Specifically, they pointed to a Union Pacific railroad maintenance facility and the discharge of raw sewage from the towns of Green River and Rock Springs.

"I floated that river clear down to Brown's park in '57," retired Wyoming warden Jim June (Green River, Wyo.) said. "After you started at Green River, that son-of-a-bitch was pretty well polluted all the way down. ... as soon as you get past Green River we were finding ducks and geese and everything else dead on the shores from the oil and pollution from the river.

"I think about in the '30s is when the railroads started dumping all that crap in and sending all the oil and pollution downstream."

According to accounts of Carl Gaensslen (Green River, Wyo.) and Jim June, raw sewage from Rock Springs flowed into the Green River from at least the early 1920s up until the late 1940s and 1950s.



Photo by Fred Quartarone

Ted Cook

Ted Cook (Green River, Wyo.) worked in the roundhouse at Green River, cleaning locomotives. He recalled the cleaning process: "... you'd get a lot of muck out of 'em and scale. Scale, you've seen scale in the tea kettle. That scale would get in great big chunks like this, you'd have to wash it down ... There was the sewer coming in and you might say there was the oil coming in from the sewers over at the roundhouse. Where them pits was, they were full of oil and it'd wash down into the sewer and down in the river. There was a place where the sewer used to let out down there."

Possibly compounding the pollution problems for native fish in the upper Green River were habitat changes from graveling operations, according to Carl Williams (Green River, Wyo.).

Williams recalled three places in the river where companies dredged gravel and sand directly from its bed.

"They used to haul a lot of gravel and sand out of the river, and they had plants along the river. They had a big scoop that would dredge it, take it and then it would just fill right back up so that dredge or that spoon would just keep working in that one spot or area. Then they had one right up just directly below the railroad bridge, they had a sand and gravel plant and that also worked the same way. They had a cable and they'd go out and drag it back through the river. If I remember right they had one up here above Palisades, a small one on the river."

Rotenone downstream from Swinging Bridge

The program's participants were well aware of the endangered fishes' presence in lower Browns Park and Dinosaur National Monument, as indicated in the Green River Star's Aug. 30, 1962, edition: "Agencies are taking extensive measures to protect the rare native fish in the Dinosaur Monument area of Colorado. To prevent the elimination of these fish, a detoxification chemical, potassium-permanganate, will be placed in the stream near the Colorado-Utah state line."

Despite the "extensive measures," unneutralized rotenone flowed past the Swinging Bridge and into Dinosaur National Monument. A precise account of

how the rotenone got past the detoxification station was not found.

Al Regenthal (Bountiful, Utah), who was in charge of the detoxification station, said he had no idea how the rotenone got downstream: "I don't know. As I said, we were going along pretty well there and everything seemed to be all right, whether there was ... something came along later out of the impoundment or what, I'm not certain but actually I don't think we had any mass kill down through there at all, that we could see.

"We stayed there (at the detoxification station) until the colormetric tests indicated that the rotenone content of the water coming down past that site was OK and the fish were alive in the cages so everything seemed to be working out like it was supposed to work. Apparently there was some slip up somehow, what that would be, I don't know."

Reference to possible problems at the detoxification station were stated in (Binns 1967), during a discussion of how the rotenone's concentration levels were going to administered in correlation to river flow levels:

"River flow data was collected immediately prior to the treatment and used to calculate the discharge of rotenone from each station needed to produce a concentration of 5.0 ppm of five percent rotenone in the river. The concentration developed at the last six stations was scheduled to be gradually reduced from 5.0 ppm to 2.0 ppm to assist in the detoxification operation. The latter operation took place from a bridge 31 miles downstream from Flaming Gorge Dam and utilized potassium permanganate to neutralize the rotenone.

"Unfortunately, a sudden drop in the river flow, which was undetected until the latter stages of treatment, resulted in the introduction of more rotenone than needed to produce 5.0 ppm concentration. The actual concentrations, based upon corrected flow data and discharges of rotenone, ranged from 9.4 ppm at station No. 1 to 2.5 ppm at station No. 22 (about 35 miles above the detoxification station)."

Rotenone effects in Dinosaur National Monument

Insight into the effects of the rotenone in Dinosaur National Monument was provided in a report (Hagen 1963 et al.) that documented the ecological and limnological content of the Green River in Dinosaur National Monument from the fall of 1961 to November 1962. In the back of the report is a copy of co-author Joe Banks' diary that included an account of the rotenone's effects in the monument. The diary reads:

Sept. 7, 1962

Spent the night at Brown's Park. Four potassium permanganate dispensers were placed on the swinging bridge. One was used only for a short time because it was throwing permanganate on the bank.

Sept. 8, 1962

The river was flowing approximately 720 cfs at the bridge. Rotenone reached the bridge about 7 a.m. The first fish that I noticed in distress were the small Green River Spring dace. Redside



Photo courtesy of Museum of Western Colorado

A group of early anglers pose with their catch near Fruita, Colo.

shiner and flannelmouth suckers were the next to appear, and then carp and catfish. I collected a few small roundtail chubs and one humpback sucker. All fish were picked up within two blocks of the Brown's Park bridge. Fish were observed in distress only for a period of about 1 1/2 hours. I saw only one carp smaller than 7 or 8 inches, but quite a few from 9 to 10 inches and larger. I saw very few channel catfish and very few roundtail chubs. I did not see any bonytail chubs. The fish that seemed to be hit the hardest were the flannelmouth suckers. I observed and collected quite a few of these fish of all sizes. I also observed no mountain suckers. One ichthyologist (Jack McCoy) from Colorado University testified that he had observed between 50 and 60 humpback suckers floating down the middle of the river where it was impossible to pick them up. He also showed me his collection of fish that he had taken below the poisoning station near the Linwood Bridge. It consisted primarily of flannelmouth suckers, mountain suckers, and roundtail chubs. Two live cars were set in the river at the Lodore Ranger Station. Green River Spring dace, Colorado speckled dace and young flannelmouth suckers were placed in them, about 75-100 fish in each car.

Sept. 9, 1962

Chloroform tests for rotenone were carried out at four-hour intervals during the night, and a concentration of .25 ppm rotenone was found at 6 a.m. The live cars had a mortality of about 80 percent. Green River Spring dace were observed in distress at approximately 7 a.m., also young flannelmouth suckers. Upon examination numer-

ous fish were observed washed up upon the sandbars and banks near the ranger station. Six humpback suckers were found, two bonytail chubs, one roundtail chub, one channel catfish and several carp were collected. One male humpback sucker had breeding tubercles. Very few of these fish were dead.

Sept. 10, 1962

Chloroform test for rotenone at 8 a.m. showed a concentration of .25 ppm rotenone. Spring dace, flannelmouth suckers, a few carp, two humpback suckers, two fish that I believe were hybrid suckers and two large Colorado River squawfish were observed to be in distress on the sandbars and near the edges of the river. (One squawfish was dead.) Again, very few of these fish were dead. There seemed to be a great many more large flannelmouth suckers than were found the day before. The two large squawfish were found, one dead and one alive, about 200 yards from each other in the same channel.

Sept. 11, 1962

No fish were observed in distress in the morning but many large carp (7 inches and larger) were observed in distress during the afternoon. Several channel catfish were also seen floating on the surface. None of these fish were dead.

Sept. 17, 1962, Split Mountain campground

I walked approximately one mile along the river bank at Split Mountain and counted 18 flannelmouth suckers, two humpback suckers, one carp and one channel catfish. All of these fish were dead. I preserved one of the humpback suckers. The rest were partially decomposed. I also saw two fish that did not appear to be in distress. One was a flannelmouth sucker and the other was undistinguishable. I also saw numerous fish rising to the surface for flies.

In the final write-up of his masters thesis (Banks, 1964), Banks summarized the effects of the rotenone in the monument:

"Following the upstream eradication project of September 1962, a partial fish kill by rotenone occurred through the length of the Green River portion of the thesis area (from the detoxification station at the Colorado-Utah border to the Split Mountain Campground on the monument's western side). The apparent effects of the accidental stream pollution were a decrease in abundance and distribution of the fish fauna. Mortality at the Gates of Lodore study area was severe; however, it appeared to decrease as the pollutant moved downstream. No fish were encountered for a period of more than a month following the observed loss of fish life at Gates of Lodore. Sampling in October 1962 at other study areas also indicated a decrease in abundance of some species."

Catfishes' impact on Colorado squawfish

Residents throughout the basin reported finding or seeing dead Colorado squawfish with catfish lodged in their mouths. Many seniors offered this as a direct reason for the species decline. According to their recounts, the impact of this phenomenon was widespread throughout the upper basin.

"While I'm thinking about it, let me tell you one of the problems we had with your squawfish before we got rotenone. Channel cats would kill them," said Glade Ross (Browns Park, Colo.), a park ranger at Dinosaur National Monument. "I was on one of those boat trips, floating in the back eddy, one of these big ol' squawfish pulled over, they would have channels caught in their mouths. You know those barbs on the channels that stick out, they would get lodged in their throat here and they would starve to death or drown. I don't know what. We would lose them to the channel cats even before the rotenone."

Wanda Staley (Vernal, Utah) believes catfish were directly linked to the Colorado squawfish's decline.

"The reason the whitefish disappeared was because they introduced the channel cat," she said. "The whitefish, or as you call them squawfish, would swallow the channel cat and those barbs would get stuck in their throat and it would kill them. We found a number of them that died that way."

Bill Allen (Vernal, Utah) recalls that fishing for Colorado squawfish slackened after the introduction of catfish to the Green River.

"We used to catch them (Colorado squawfish) down there (around Jensen, Utah) and in the Green River up there," Allen said. "They was nice ones up there until they planted them catfish. The catfish have them horns on their gills. The whitefish would eat them and it would kill them. When they'd eat them catfish, well it'd just tear them up inside and kill 'em."

"We seen dead ones. I don't know how many of them. We used to catch catfish up there long about 1933 and 1934. It just seems like the whitefish went downhill after they put them catfish up in there."

Lawrence Day (Moab, Utah) believed that catfish contributed to the Colorado squawfishes' decline.

"A lot of them, old, old-timers, used to catch them when they was kids, up along the Dolores and upper Colorado," Day said. "I got a theory about them and I wish somebody would check it. I think when they introduced the catfish in about 1920, the big salmon started to decline because I think they punctured their insides."

Lawrence Hastings (Green River, Utah) contributes the Colorado squawfish's decline to predation by catfish.

"I think it's when they got the catfish started in the 1920s in Colorado, and then they started in the early 1930s, I think the cats were eating all the squawfish. That's when they started dropping down," he said.

Irrigation ditches and the endangered fish

Another impact difficult to quantify was the loss of endangered fish through irrigation practices. This impact may seem trivial, but widespread accounts of fish swimming into ditches and being deposited onto fields were recalled by the seniors.

While Bob Latham (Debeque, Colo.) doesn't differentiate between which suckers he is referring to, he recalls the suckers being put onto agricultural

fields. "They used to come right out in the irrigation ditches when they'd irrigate. I'd see one or even two or three at a time. Suckers are pretty much extinct around here anymore."

Several seniors remembered an incident that occurred in the late 1920s above Palisade, Colo., where thousands of river fish were deposited onto a peach orchard via an irrigation canal. According to Lyndon Granat (Palisade, Colo.): "... there was a flood on Plateau Creek one time, and it spilled over and came into the old Orchard Mesa Canal and out of the river came, I'm going to say thousands of suckers. At that time Ivan Baker lived up there on the largest peach orchard in the valley. The water ran out there in the irrigation system and the fish went out there and they just laid up like that, acres of them, down in the peach orchard. I'm sure there were thousands of them, how many thousands, you can't count them. They were just side by side they were so thick, probably 10 acres packed. It was a lot of fish.

"They tried to disc some of them in, but there was no way you could take them out. The ground was too wet and muddy to get in there and do anything. I think they probably let 'em rot like there."

Along the Gunnison River, Kenneth and Wendell Johnson (Delta, Colo.) remembered seeing hundreds of dead suckers, including razorback suckers, when the ditch that ran through their farm was drained to kill moss.

"We had humpback suckers and we had ... I know when we got most of our suckers was when we used to shut our water out of the Hartland ditch to moss it. In other words, you shut the water off to let the moss dry and when you do that, those fish are caught in there. And hell they'd be absolutely thick in those ditches," Wendell said.

"You know the fish would be in there thick, and hell you could go in there with the wagons and I'd bet every half a mile you could load a wagon with fish from it. There was that many fish in it.

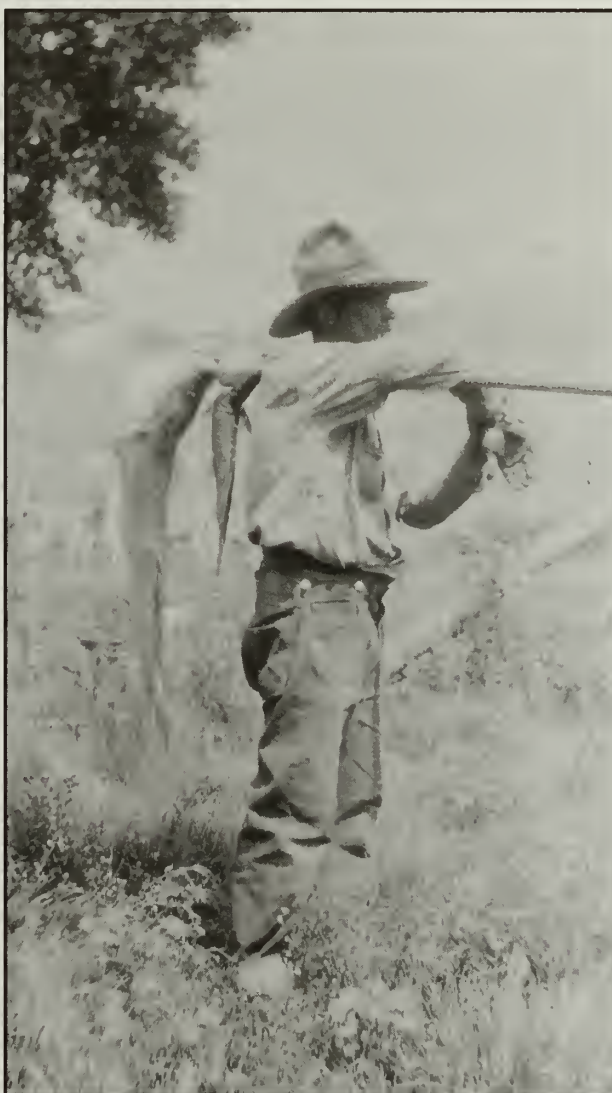


Photo courtesy of Wanda Staley

Hod Ruple carries two Colorado squawfish he caught while irrigating hay fields in Island Park around 1934.

“Hell, years ago, you’d just go down to Hartland Ditch and I would say a fifth of those would be those damn razorbacks.”

Chapter 5

Attitudes toward the fish

49

"My idea is they're just a trash fish; you can't eat them, and they're not much fun to catch. If you put trout or something in there that you could eat, and people could use them ... why I think it'd be a benefit to have. Some people got different ideas."

George Anderson, Debeque, Colo.

Despite the numerous positive stories about the fish presented in previous chapters, many seniors interviewed in this project concurred with George Anderson's opinion of the endangered fish. Their criticisms focused on the edibility of the endangered fish versus non-native sport fish such as trout and catfish. It is this on this point of contention that many of the seniors based their complaints.

When asked his opinion about the decline of suckers in the Colorado River, Bob Latham (Debeque, Colo.) responded: "I like trout. Those damn suckers, they used to be so full of bones. We'd have to cut them up and pressure cook them."

Don Overmeyer (Steamboat Springs) once tried eating bonytail chubs: "I tried to eat some of them. They were ... bony. They were just like suckers; they got 'Y' bones on them. I would consider them inedible, and at that time considered them to be trash fish."

'Fault through comparison'

The mere comparison of the endangered fish to trout or catfish often prompted negative responses. In the eyes of many seniors, the endangered fish could not compare to the more edible trout and catfish. Thus, with the increase of catfish and trout fishing in the upper basin — from the 1920s on — the endangered fish fell into disfavor and became a scapegoat for anglers' criticism.

The influx of catfish into upper basin waters inhabited by the endangered fish gave the seniors an option to catch a meaty, less bony fish. The catfish could be prepared without pressure cooking. Its popularity soared at the expense of the endangered fish.

Dick Bennett (Manila, Utah), a retired Utah game warden who worked the Green River in the area of present day Flaming Gorge Reservoir in the 1940s through 1960s, responded to a question about how often local residents ate the endangered fish: "Well not very much. They would pressure cook some of them and eat them. They were awfully bony. You see there was quite a lot of catfish in here, and they would eat them."

Steve Radosevich (Browns Park, Utah), another retired Utah game warden, would catch Colorado squawfish and occasionally smoke them in the 1950s, however, he preferred eating catfish: "Well once in a while we would smoke them (Colorado squawfish). That was about it. We never did keep any suckers. However we have tried them all. The catfish was far the best. Still are I think."



Photo courtesy of Katharine Rinker

Florence Barnes stands next to a Colorado squawfish caught in Lily Park during the early 1930s.

In the post-Depression years, transportation modes improved, upper basin residents had more free time, and many seniors said they stopped angling for the endangered fish and pursued trout instead.

Harry Russell (Baggs, Wyo.) compares seniors' opinions of the endangered fish and trout: "They thought about the same as I did. I never heard of anybody enjoying them like a trout. They tried to eat them but they're so bony; they probably tasted all right, but they're full of bones."

Don Hatch (Vernal, Utah) talks about his family's opinion of the endangered fish: "See we take them, seine them out of the river and dump them on the lawn, let them die on the banks, we get a gunny sack full and use them for fertilizer, or whatever. If you couldn't eat them, what good were they anyway. Of course we didn't think they were pretty either, like rainbow trout or game fish."

Don recalled his father, Bus, culling through the fish they had caught and saving the catfish.

"The reason we seined, we'd sort through and keep some of the fish ourselves that we thought were edible," he said. "Oh, he'd keep the catfish. That's

just about all he'd keep. And the other fish we'd bring to town in gunny sacks."

A story from Clarence Smith (Fruita, Colo.) about a fish fry alludes to upper basin residents' preference for catfish: "No, years ago they used to seine the river. I knew a man real well, he was a county commissioner and he had ... you could get a seining license at that time. They were going to have a big fish fry and which they did have, but with this seining permit why you were supposed to throw all the catfish back into the river but you could keep all the squawfish, suckers, carp, trash fish, anything you wanted outside the catfish. And they did throw the catfish back, but they missed the damn river all the time, and they had a catfish fry. That was back in '37, the first year we came here because I was down on one of the expeditions on that."

'Fault by misidentification'

Seniors' attitudes toward the endangered fish also were influenced by what they perceived the fish to be. Many seniors' perceptions were based upon inaccurate identification of the four species. As mentioned before, confusion over species identification, particularly Colorado squawfish and roundtail chubs, was widespread.

The perception that the roundtail chub is listed as an endangered species and that extensive efforts are being made to recover it contributes greatly to seniors' attitudes toward the "endangered fish" and the Recovery Program. Retired Colorado game warden, Bill Roland (Craig, Colo.), describes the problem: "These people around here get all shook up about protecting these squawfish. It's a big joke around here. Oh yeah they think we're just crazier than hell for wanting to save them.

"If someone would take the time ... people talk about saving that damned squawfish and this is what they're talking about here (pointing to a roundtail chub)."

Misidentification of the other three endangered species also influenced the seniors attitudes toward the fish.

Other attitudes

Aside from some seniors' negative attitudes toward the endangered fish, there were attitudes of indifference:

Glen Glasgow (Meeker, Colo.): "Well put it this way, they don't bother me, they're there, but it won't bother me if they weren't. I guess that's the easiest way for me to put it."

Tom Hastings (Green River, Utah) also wasn't concerned about the fish: "It don't really make any difference to me because the way I see ... catfish are a lot better eating as far as eating goes, if you have to eat one of the damned things."

As a child, Katharine Rinker (Lily Park, Colo.) caught endangered fish and her family used them to supplement their rural diet. When asked what she thought about the fishes' decline, she responded: "Haven't really considered it too much. Well, I still get about as many fish as I ever did or more because of the kids, but I haven't fished for years."

Some seniors took a more involved look at the decline of the endangered fish, seeing their dilemma as being part of their destiny.

Lyndon Granat (Palisade, Colo.) viewed the plight of the endangered fish as "a matter of evolution": "It's just a matter of evolution that ... well let's face

it, when I came here to Palisade the population of the United States was 120 million people, now what is it, about 250 million? Grand Junction used to have a population of about 15,000; now they got about 65,000. Palisade's population when I came was about 800; now it's about 2,000. So you got people, you got different evolution coming on. Something's crowded out when people come in. Isn't that right? Wildlife?"

Gene Bittler (Maybell, Colo.) thinks Colorado squawfish will take care of themselves: "I personally think the squawfish will take care of itself. I just got that feeling. They must be able to you know or they wouldn't be able to ... you know. Nature does a lot of things people screw up if you want to know the truth.

Changing attitudes toward the fish

Despite the fact that some upper basin seniors historically held the fish in contempt, their attitudes are changing, and some are reconsidering the fishes' importance.

Don Hatch (Vernal, Utah): "Well, when you grow up and all your life you've been told they are just trash fish, it's hard to get over that feeling that they're just trash fish. We can't see much good in these fish, but of course we haven't been brought up to date on these things. Some people might say they're valuable because we've been told they're endangered, of course they're valuable, of course they're endangered so that's the reason you should take care of them. We know now."

Carl Williams (Green River, Wyo.) talked about the establishment of a trout fishery on the upper Green River and his feelings about the endangered fish: "For us, it gave us some terrific trout fishing for a period of maybe five or six years after they got up to catchable size. And as far as the suckers and the bonetails, that didn't seem like it bothered any of us around here that we lost them because none of us would eat them and we weren't ones that thought about endangered species or anything like that. And so I think most of us felt that it was beneficial and that was in the eyes of the sportsmen, not one that was looking to preserve. And when I started looking back and we were talking about like I said with the whitefish and with the different type of sucker there, like the bonetail there, which we were losing now or we don't find in the rivers anymore, then you start to think a little more about it."

Chapter 6

Conclusions

53

“Gut them and chunk them and put them in quart jars, pressure cook them. Damn, they made salmon taste bad. The bones and everything else. That’s what we lived on back in them days. I tell you, in the Depression years you ate what you could get, you know. And that was quite a supplement to your food supply.”

Lyndon Granat, Palisade, Colo., resident

The endangered fish seem to have played a positive and important role in upper basin residents lives. Throughout this report seniors recalled using the fish for recreation, subsistence and commercial purposes.

The extent of those uses varied in degree and over time. Rural residents tended to use the fish more often than urban residents, although both groups recalled subsistence and recreational uses of the fish.

Generally, upper basin residents used the fish more in the 1910s, 1920s and 1930s. Their use after this period seemed to lessen as the fish declined and many anglers pursued trout.

The dynamics affecting upper basin residents use of the fish were great. Changes on social, economic and environmental levels contributed to the decreased use of these fish. Accompanying the decrease in the fishes’ use was a change in public attitudes.

The increase in opportunities for fishing for catfish and trout in the upper basin figured greatly into people’s opinions of the native species. When faced with the option of catching the endangered fish or trout and catfish, people chose the latter two. The endangered fish fell into disfavor and seemed to become a scapegoat for criticism.

Negative attitudes present in the basin today originally stemmed from these criticisms. The basis of those criticisms are linked to the palatability of endangered fish versus trout and catfish.

Many seniors expressed negative attitudes in the upper basin without correctly being able to identify the four fish. Confusing endangered and nonendangered fish was widespread and common. This confusion contributes to residents’ opinions of the fish and the efforts to recover them.

Public attitudes in the basin vary from negative or indifferent to positive. Indications exist that those attitudes can change.

Recommendations

The information contained in this report should be disseminated to the public as effectively as possible. In particular, an effort should be made to educate the public about the difference between Colorado squawfish and roundtail chubs. Anecdotal evidence from this report that references the size of the Colorado squawfish can be used to accomplish this.

The historical story of these fish as told by this report can be disseminated to the public to show the role these fish played in the history of the West.

The ultimate worth of this project and the future dynamics of public attitudes will be determined in part by how effectively these goals are accomplished.

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55

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Interviewees

Airheart, Nora, Baggs, Wyo.

Allen, Bill, Vernal, Utah, born 1913.

Allen, Bob, Browns Park, Utah, born 1947.

Anderson, George, Debeque, Colo., born 1915.

Arnoldi, Jim, Green River, Wyo., retired Wyoming game warden.

Ayers, Otho, Paradox, Colo., born 1913.

Bailey, Kenneth, Hayden, Colo., born 1911.

Bittler, Gene, Maybell, Colo., born 1934.

Bennett, Dick, Manila, Utah, retired Utah game warden, born 1919.

Blair, William, Whitewater, Colo.

Blevins, Freddy, Browns Park, Colo., born 1941.

Blevins, Joey, Browns Park, Colo.

Boulton, Owen, Rifle, Colo., born 1904.

Buffham, Jim, Maybell, Colo.

Cargile, Everett, Rifle, Colo., born 1920.

Case, Annie Mae, Debeque, Colo., born 1919.

Case, Ray, Debeque, Colo.

Chew, Doug, Island Park, Utah, born 1901.

Cook, Ted, Green River, Wyo., born 1909.

Crandell, Bill, Debeque, Colo., born 1913.

Craner, Leo, Baggs, Wyo.

Crouch, Hugh, Green River, Wyo., born 1901.

Curtis, Floyd, Baggs, Wyo.
Daugherty, Arthur, Clifton, Colo., born 1912.
Day, Lawrence, Moab, Utah, born 1929.
Debeque, Armand, Debeque, Colo., born 1912.
Edwards, Eddy, Baggs, Wyo., born 1930.
Eiserman, Fred, Casper, Wyo., ex-fisheries research leader Wyoming
Game & Fish Department.
Folks, Neil, Browns Park, Utah, employee of Utah Division of Wildlife
Resources.
Gaensslen, Carl, Green River, Wyo., born 1910.
Gilpin, Lee, Baggs, Wyo., born 1914.
Glasgow, Glen, Meeker, Colo., born 1922.
Granat, Lyndon, Palisade, Colo., born 1913.
Hannigan, Larry, Gateway, Colo., born 1938.
Hastings, Tom, Green River, Utah, born 1926.
Hatch, Don, Vernal, Utah, born 1928.
Hayward, Lee, Parachute, Colo., born 1918.
Hickman, Virgil, Palisade, Colo., born 1905.
Hill, Jim, Rifle, Colo., born 1927.
Hines, Carol, Moab, Utah, born 1913.
Hodgin, Gordon, Delta, Colo., born 1913.
Howard, Guy, Delta, Colo., born 1909.
Hunt, La Rue, Green River, Utah, born 1933.
Hutton, Bill, Rifle, Colo., born 1927.
Inglehart, Charles, Fruita, Colo., born 1907.
Johnson, Kenneth, Delta, Colo., born 1936.
Johnson, Wendell, Delta, Colo., born 1941.
Jons, Kay, Baggs, Wyo.
June, Jim, Green River, Wyo., retired Wyoming game warden, born 1927.
Kerzan, Pete, Lakewood, Colo., born 1895.
Kraybill, Paul, Rifle, Colo., born 1901.
Larimore, Don, Green River, Wyo., born 1914.
Larsen, Briggs, Moab, Utah, born 1930.
Latham, Bob, Debeque, Colo., born 1910.
Leslie, Truman, Craig, Colo.

Lewis, Roy, Steamboat Springs, Colo., born 1910.

Makie, John, Green River, Wyo., born 1910.

McDaniel, Floyd, Parachute, Colo., born 1930.

McIntosh, Morgan, Rock Springs, Wyo., born 1922.

Merchant, Tim, Green River, Wyo., born 1947.

Meyer, Raymond, Delta, Colo., born 1917.

Michel, Fred, Rifle, Colo., born 1903.

Mitchell, Scott, Manila, Utah, born 1914.

Morrison, Carl, Green River, Wyo., born 1925.

Nelson, Earline, Green River, Utah, born 1918.

Overmeyer, Don, Steamboat Springs, born 1930.

Overmeyer, Harold, Craig, Colo., retired Colorado game warden, born 1906.

Overmeyer, Leona, Craig, Colo., born 1907.

Pace, Sid, Gateway, Colo., born 1927.

Proctor, Bob, Paradox, Colo., born 1915.

Radosevich, Arlie, Browns Park, Utah, born 1907.

Radosevich, Steve, Browns Park, Utah, retired Utah game warden, born 1907.

Rainbolt, Wilma, Rifle, Colo., born 1927.

Regenthal, Al, Bountiful, Utah, ex-fisheries research leader Utah Division of Wildlife Resources.

Rinker, Katharine, Lily Park, Colo., born 1918.

Roland, Bill, Craig, Colo., retired Colorado game warden, born, 1914.

Rosenlund, Dick, Meeker, Colo., born 1911.

Ross, Dorothy, Green River, Utah, born 1911.

Ross, Frank, Green River, Utah.

Ross, Glade, Gates of Lodore, Colo., Dinosaur National Monument ranger.

Russell, Harry, Dixon, Wyo., born 1911.

Russell, Jean, Dixon, Wyo., born 1913.

Schaefermeyer, Earl, Green River, Utah, born 1914.

Schneider, Joe, Dixon, Wyo.

Schumacher, Al, Craig, Colo., born 1908.

Scofield, Eleanor, Green River, Wyo., born 1915.

Scovill, Alma, Green River, Utah, born 1909.

Self, Joe, Craig, Colo., born 1911.

Sherwood, Dick, Whitewater, Colo., born 1916.
Shults, Claude, Meeker, Colo., born 1911.
Shults, Otto, Meeker, Colo., born 1946.
Siminoe, Walt, Whitewater, Colo., born 1901.
Simper, Norma, Vernal, Utah, born 1909.
Smith, Clarence, Fruita, Colo., born 1915.
Smith, Jim, Steamboat Springs, Colo., born 1924.
Snyder, Herbert, Grand Junction, Colo., born 1918.
Staley (Ruple), Wanda, Vernal, Utah, born 1920.
Steinaker, Elbert, Manila, Utah, born 1909.
Stephens, Ester, Delta, Colo., born 1908.
Stewart, Dale, Vernal, Utah, born 1920.
Stewart, Max, Vernal, Utah, born 1929.
Stow, Robert, Moab, Utah, born 1928.
Swain, Tom, Paradox, Colo., born 1919.
Westwood, Verlyn, Moab, Utah, born 1936.
White, Essie, Moab, Utah, born 1905.
Williams, Carl, Green River, Wyo., born 1931.
Williams, Eleen, Dutch John, Utah.
Williams, Gilbert, Dixon, Wyo., born 1911.
Wing, Al, Grand Junction, Colo., born 1908.
Wixon, Harold, Hayden, Colo., born 1914.
Wyckoff, Normon, Palisade, Colo., born 1903.
Young, Bennett, Palisade, Colo., born 1915.



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